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SHARP 21B-S10 SERVICE MANUAL

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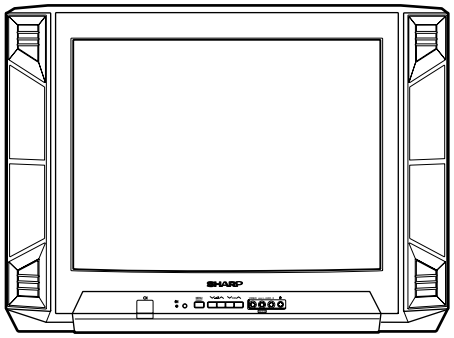

COLOUR TELEVISION

Chassis No. UA-1

MODEL 21B-S10

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURE

- World Multi 21 System
- Full Auto Channel Preset and Auto Channel Skip
- 100 CH Program Memory
- High Contrast Picture
- CATV (Hyper Band) Ready
  <Used Frequency Synthesizer Tune>
- AVL (Sound Keeper) Function
- Black Strech Circuit
- ON Timer/Sleep Timer/Reminder Timer
- Blue Back Noise Mute
- Front AV In and Rear AV In/Out Terminals
- Colour-Comb Filter (NTSC only)
- Hotel Mode
- Front Headphone Jack
- Multi Language OSD (English/Chinese/French/ Arabic/Malay/Russian)
- AV Stereo
- Surround Sound Effect

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WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

SHARP CORPORATION

SPECIFICATIONS

Power Input ..... AC 110 - 240V, 50/60 Hz
Power Consumption ..... 100 W
Convergence ..... Self Convergence System
Focus ..... Quadra Potential Electrostatic
Sweep Deflection ..... Magnetic
Intermediate Frequency
  Picture IF Carrier ..... 38.9 MHz
  Sound IF Carrier Frequency
    6.5 MHz ..... 32.4 MHz
    6.0 MHz ..... 32.9 MHz
    5.5 MHz ..... 33.4 MHz
  Colour Sub-Carrier Frequency ..... 34.47 MHz
Audio Power Output Rating ..... 7.5 W × 2 (RMS)
Speaker
  Size ..... 6 × 12 cm Elliptic (2 pcs.)
  Voice Coil Impedance ..... 6 ohms at 400 Hz
Aerial Input Impedance
  VHF/UHF ..... 75 ohm Unbalanced
Receiving System ..... CCiR SECAM /PAL B, G, D, K, I
NTSC 3.58/4.43 MHz

Tuner Ranges
- VHF-Channels ..... E2 (48.25 MHz) thru E12 (224.25 MHz)
  C1 (49.75 MHz) thru C12 (216.25 MHz)
  S1 (105.25 MHz) thru S41 (463.25 MHz)

- UHF-Channels ..... E21 (471.25 MHz) thru E69 (855.25 MHz)
  C13 (471.75 MHz) thru E12 (836.25 MHz)

Receiving Frequency
  VHF ..... 44.25 MHz thru 423.25 MHz
Dimensions ..... Width : 642.0 mm
Height : 475.0 mm
Depth : 477.0 mm
Weight (Approx) : 21.0 kg

Specifications are subject to change without prior notice.

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10k ohm Resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. **Picture tube in this receiver employs integral implosion protection.**
2. **Replace with tube of the same type number for continued safety.**
3. **Do not lift picture tube by the neck.**
4. **Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely**

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. **When repairing the circuit, be sure not to increase the high voltage to more than 26.5 ± 1.5 kV (at beam 0.1 µA) for the set.**
2. **To keep the set in a normal operation, be sure to make it function on 24.6 ± 1.5 kV (at beam 1,100 µA) in the case of the set. The set has been factory – Adjusted to the above-mentioned high voltage.**
   ∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3. **Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.**

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. **Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.**
2. **Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators and etc.**

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: though the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

1. Setting the service mode by the microprocessor.

① Make a short-circuit JA122 and JA124 for a second and release to switch to the service mode position and the microprocessor is in input mode. (Adjustment through the I²C bus control). (Use JWS Key to set as well).
② Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.
③ Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.
④ Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.
⑤ Make a short-circuit JA122 and JA124 for a second and release to switch to the normal mode (OFF) position and the microprocessor is in out of the service mode.

2. Factory Presetting.

① Make a short-circuit JA122 and JA124 for a second and release to switch to the service mode position and turn on the main power switch. Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).
② The initial data are preset as listed in pages 4-6.
③ Make sure the data need modify or not (Initial data).

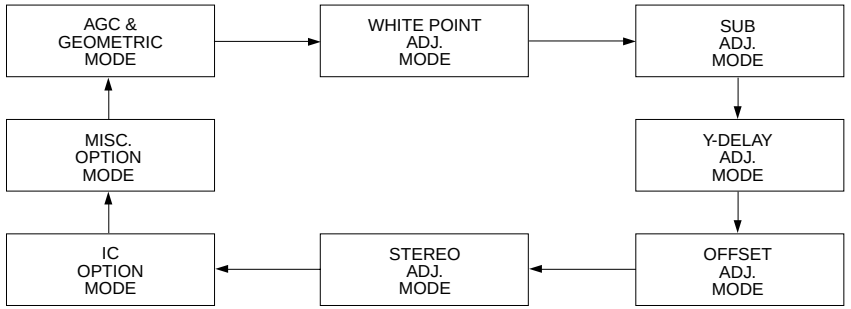
Note: Once the chassis has been assembly together and ready to be POWER ON for the FIRST TIME, make sure to make a short-circuit JA122 and JA124 switch to the service mode position first and then turn on the main power switch. (See 2-1 above).

Precaution: If haven't done this initiation, it may possibly generate excessive Beam current.

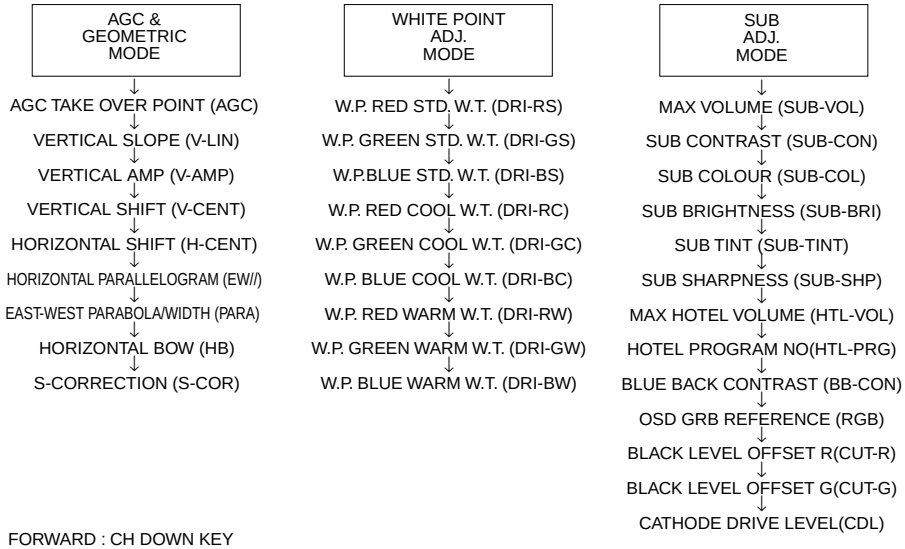
3. For reference please check with memory map (UA1 Series type RH-iX3410CE Attachment)

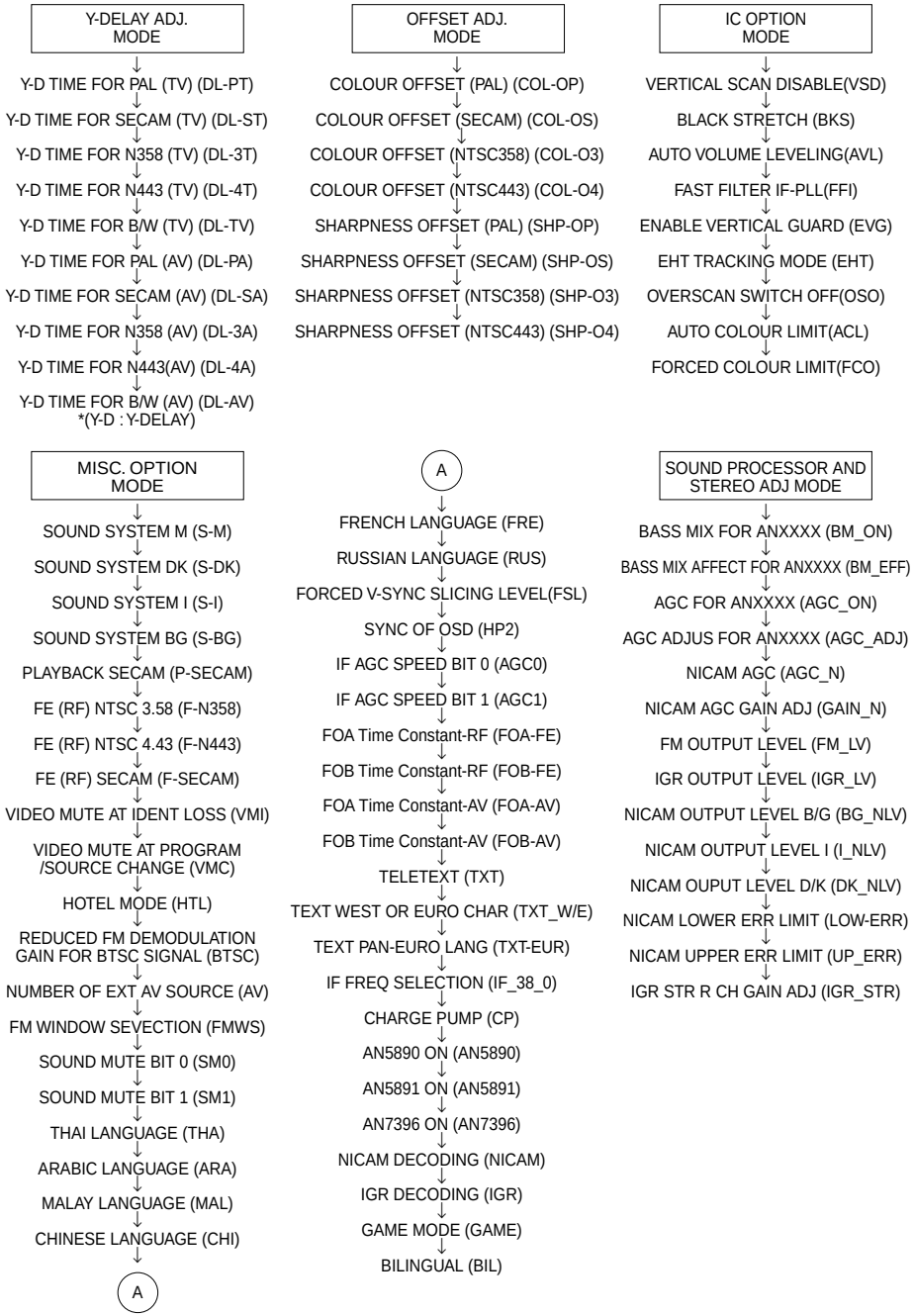
■ SERVICE MODE

(1) In the Service Mode, Key is used to select the mode in the following order.



FORWARD : CH DOWN KEY
REVERSE : CH UP KEY



FORWARD : CH DOWN KEY
REVERSE : CH UP KEY
* ( ) means OSD display.

Y-DELAY ADJ. MODE
Y-D TIME FOR PAL (TV) (DL-PT)
Y-D TIME FOR SECAM (TV) (DL-ST)
Y-D TIME FOR N358 (TV) (DL-3T)
Y-D TIME FOR N443 (TV) (DL-4T)
Y-D TIME FOR B/W (TV) (DL-TV)
Y-D TIME FOR PAL (AV) (DL-PA)
Y-D TIME FOR SECAM (AV) (DL-SA)
Y-D TIME FOR N358 (AV) (DL-3A)
Y-D TIME FOR N443(AV) (DL-4A)
Y-D TIME FOR B/W (AV) (DL-AV)
*(Y-D : Y-DELAY)
OFFSET ADJ. MODE
COLOUR OFFSET (PAL) (COL-OP)
COLOUR OFFSET (SECAM) (COL-OS)
COLOUR OFFSET (NTSC358) (COL-O3)
COLOUR OFFSET (NTSC443) (COL-O4)
SHARPNESS OFFSET (PAL) (SHP-OP)
SHARPNESS OFFSET (SECAM) (SHP-OS)
SHARPNESS OFFSET (NTSC358) (SHP-O3)
SHARPNESS OFFSET (NTSC443) (SHP-O4)
IC OPTION MODE
VERTICAL SCAN DISABLE(VSD)
BLACK STRETCH (BKS)
AUTO VOLUME LEVELING(AVL)
FAST FILTER IF-PLL(FFI)
ENABLE VERTICAL GUARD (EVG)
EHT TRACKING MODE (EHT)
OVERSCAN SWITCH OFF(OSO)
AUTO COLOUR LIMIT(ACL)
FORCED COLOUR LIMIT(FCO)
MISC. OPTION MODE
SOUND SYSTEM M (S-M)
SOUND SYSTEM DK (S-DK)
SOUND SYSTEM I (S-I)
SOUND SYSTEM BG (S-BG)
PLAYBACK SECAM (P-SECAM)
FE (RF) NTSC 3.58 (F-N358)
FE (RF) NTSC 4.43 (F-N443)
FE (RF) SECAM (F-SECAM)
VIDEO MUTE AT IDENT LOSS (VMI)
VIDEO MUTE AT PROGRAM /SOURCE CHANGE (VMC)
HOTEL MODE (HTL)
REDUCED FM DEMODULATION GAIN FOR BTSC SIGNAL (BTSC)
NUMBER OF EXT AV SOURCE (AV)
FM WINDOW SEVECTION (FMWS)
SOUND MUTE BIT 0 (SM0)
SOUND MUTE BIT 1 (SM1)
THAI LANGUAGE (THA)
ARABIC LANGUAGE (ARA)
MALAY LANGUAGE (MAL)
CHINESE LANGUAGE (CHI)
A
A
FRENCH LANGUAGE (FRE)
RUSSIAN LANGUAGE (RUS)
FORCED V-SYNC SLICING LEVEL(FSL)
SYNC OF OSD (HP2)
IF AGC SPEED BIT 0 (AGC0)
IF AGC SPEED BIT 1 (AGC1)
FOA Time Constant-RF (FOA-FE)
FOB Time Constant-RF (FOB-FE)
FOA Time Constant-AV (FOA-AV)
FOB Time Constant-AV (FOB-AV)
TELETEXT (TXT)
TEXT WEST OR EURO CHAR (TXT_W/E)
TEXT PAN-EURO LANG (TXT-EUR)
IF FREQ SELECTION (IF_38_0)
CHARGE PUMP (CP)
AN5890 ON (AN5890)
AN5891 ON (AN5891)
AN7396 ON (AN7396)
NICAM DECODING (NICAM)
IGR DECODING (IGR)
GAME MODE (GAME)
BILINGUAL (BIL)
SOUND PROCESSOR AND STEREO ADJ MODE
BASS MIX FOR ANXXXX (BM_ON)
BASS MIX AFFECT FOR ANXXXX (BM_EFF)
AGC FOR ANXXXX (AGC_ON)
AGC ADJUS FOR ANXXXX (AGC_ADJ)
NICAM AGC (AGC_N)
NICAM AGC GAIN ADJ (GAIN_N)
FM OUTPUT LEVEL (FM_LV)
IGR OUTPUT LEVEL (IGR_LV)
NICAM OUTPUT LEVEL B/G (BG_NLV)
NICAM OUTPUT LEVEL I (I_NLV)
NICAM OUPUT LEVEL D/K (DK_NLV)
NICAM LOWER ERR LIMIT (LOW-ERR)
NICAM UPPER ERR LIMIT (UP_ERR)
IGR STR R CH GAIN ADJ (IGR_STR)

USER DATA IN SERVICE MODE

* While SERVICE mode ON, EEPROM DATA will switch to the service data.
  Also, once SERVICE mode OFF, EEPROM will switch back to previous USER DATA.
* In the service mode, the user data establish as below,

MODE	USER DATA
CONTRAST	MAX
COLOUR	CENTER
BRIGHTNESS	CENTER
TINT	CENTER
SHARPNESS	CENTER
WHITE TEMP	STANDARD
S-VOLUME	MAX
BLUE BACK	OFF
C SYSTEM	AUTO
S SYSTEM	*1

*1 : For each CH, before changing service mode setting.

The flow of Mode lists as following,

* Direct Key-in Step1 Mode

RC COMMAND	SERVICE-ITEM
STANDBY/ON	STANDBY
TV/VIDEO	NEXT SOURCE
DIGIT 0˜9	DIGIT 0˜.9
AV1	SELECT AV1
AV2	SELECT AV2
-/--	1/2 DIGIT ENTRY
FUNCTION FSET	AGC
TIMER TSET	SUB-VOL
TXT/MIX	DRI-GS
PIC	DRI-BS
HOLD	DRI-GC
CANCEL	DRI-GW
SIZE	DRI-RC
REVEAL	DRI-BW
RED	CUT-R
GREEN	CUT-G
BLUE BACK	S-COR
S-SYSTEM	HB
CONTRAST+	SUB-CON
CONTRAST-	V-LIN
COLOUR+	SUB-COL
COLOUR-	V-AMP
BRIGHTNESS+	SUB-BRI
BRIGHTNESS-	V-CENT
TINT+	SUB-TINT
TINT-	H-CENT
SHARPNESS+	SUB-SHP
SHARPNESS-	EW//
BASS+	FM LV
BASS-	IGR LV
TREBLE+	IGR STR
TREBLE-	B/G NLV

After short JA122 & 124, and turn on the main power switch, read data from E²PROM address 00H ~ 03H, and compare to the list below, if different, initialize the E²PROM.

Address	:	Data	Address	:	Data
00H	:	55H	02H	:	53H
01H	:	41H	03H	:	36H

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ	REMARK
AGC TAKE OVER POINT	AGC	0~63	14	ADJ	
VERTICAL SLOPE	V-LIN	0~63	32	ADJ	
VERTICAL AMPLITUDE	V-AMP	0~63	32	ADJ	
VERTICAL SHIFT	V-CENT	0~63	32	ADJ	
HORIZONTAL SHIFT	H-CENT	0~63	32	ADJ	*11
HORIZONTAL PARALLELOGRAM	EW//	0~63	32	FIX	
EAST-WEST PARABOLA/WIDTH	PARA	0~63	32	FIX	
HORIZONTAL BOW	HB	0~63	32	FIX	
S-CORRECTION	S-COR	0~63	0	FIX	
WHITE POINT RED STD WHITE TEMP	DRI-RS	0~63	32	FIX	
WHITE POINT GREEN STD WHITE TEMP	DRI-GS	0~63	32	ADJ	
WHITE POINT BLUE STD WHITE TEMP	DRI-BS	0~63	32	ADJ	
WHITE POINT RED WARM WHITE TEMP	DRI-RW	0~63	32	FIX	
WHITE POINT GREEN WARM WHITE TEMP	DRI-GW	0~63	32	FIX	(DRI-GS)-7 DATA
WHITE POINT BLUE WARM WHITE TEMP	DRI-BW	0~63	32	FIX	(DRI-BS)-7 DATA
WHITE POINT RED COOL WHITE TEMP	DRI-RC	0~63	25	FIX	(DRI-BS)-7 DATA
WHITE POINT GREEN COOL WHITE TEMP	DRI-GC	0~63	32	FIX	(DRI-GS)-7 DATA
WHITE POINT BLUE COOL WHITE TEMP	DRI-BC	0~63	63	FIX	(DRI-BS)SAMEDATA
MAX VOLUME	SUB-VOL	0~60	60	FIX	
SUB CONTRAST	SUB-CON	0~63	63	FIX	*9
SUB COLOUR	SUB-COL	0~63	32	ADJ	
SUB BRIGHTNESS	SUB-BRI	0~63	32	ADJ	
SUB TINT	SUB-TINT	0~63	32	ADJ	
SUB SHARPNESS	SUB-SHP	0~63	32	ADJ	*5
MAX HOTEL VOLUME	HTL-VOL	0~60	30	ADJ	
HOTEL PROGRAM NUMBER	HTL-PRG	0~99 OR>99FOR NONE	255	FIX	
BLUE BACK CONTRAST	BB-CON	0~15	10	FIX	
OSD GRB REFERENCE	RGB	0~15	15	FIX	
BLACK LEVEL OFF-SET R	CUT-R	0~15	8	FIX	
BLACK LEVEL OFF-SET G	CUT-G	0~15	8	FIX	
CATHODE DRIVE LEVEL	CDL	0~15	0	FIX	*1
Y-DELAY TIME FOR PAL(TV) [YD]	DL-PT	0~15	12	FIX	
Y-DELAY TIME FOR SECAM(TV) [YD]	DL-ST	0~15	15	FIX	
Y-DELAY TIME FOR N358 (TV) [YD]	DL-3T	0~15	12	FIX	
Y-DELAY TIME FOR N443 (TV) [YD]	DL-4T	0~15	12	FIX	
Y-DELAY TIME FOR B/W (TV) [YD]	DL-TV	0~15	12	FIX	
Y-DELAY TIME FOR PAL (AV) [YD]	DL-PA	0~15	12	FIX	
Y-DELAY TIME FOR SECAM (AV) [YD]	DL-SA	0~15	15	FIX	
Y-DELAY TIME FOR N358 (AV) [YD]	DL-3A	0~15	12	FIX	
Y-DELAY TIME FOR N443 (AV) [YD]	DL-4A	0~15	12	FIX	
Y-DELAY TIME FOR B/W (AV) [YD]	DL-AV	0~15	12	FIX	
COLOUR OFFSET (PAL)	COL-OP	0~15	8	FIX	*2
COLOUR OFFSET (SECAM)	COL-OS	0~15	8	FIX	*2

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ	REMARK
COLOUR OFFSET (NTSC358)	COL-03	0~15	4	FIX	*2
COLOUR OFFSET (NTSC443)	COL-O4	0~15	4	FIX	*2
SHARPNESS OFFSET (PAL)	SHP-OP	0~15	8	FIX	
SHARPNESS OFFSET (SECAM)	SHP-OS	0~15	4	FIX	
SHARPNESS OFFSET (NTSC358)	SHP-O3	0~15	12	FIX	
SHARPNESS OFFSET (NTSC443)	SHP-O4	0~15	8	FIX	
VERTICAL SCAN DISABLE	VSD	0(DISABLE)/1(ENABLE)	0	FIX	
BLACK STRETCH	BKS	0(DISABLE)/1(ENABLE)	1	FIX	
AUTOMATIC VOLUME LEVELING	AVL	0(DISABLE)/1(ENABLE)	1	FIX	
FAST FILTER IF-PLL	FFI	0(DISABLE)/1(ENABLE)	0	FIX	
ENABLE VERTICAL GUARD (RGB BLANKING)	EVG	0(DISABLE)/1(ENABLE)	1	FIX	ONLY BLK
EHT TRACKING MODE (HCO)	EHT	0(DISABLE)/1(ENABLE)	1	FIX	
OVERSCAN SWITCH OFF	OSO	0(DISABLE)/1(ENABLE)	0	FIX	
AUTO COLOUR LIMIT	ACL	0(DISABLE)/1(ENABLE)	0	FIX	
FORCED COLOUR LIMIT	FCO	0(DISABLE)/1(ENABLE)	0	FIX	
SOUND SYSTEM M	S-M	0(DISABLE)/1(ENABLE)	0	FIX	*3
SOUND SYSTEM DK	S-DK	0(DISABLE)/1(ENABLE)	0	FIX	*3
SOUND SYSTEM I	S-I	0(DISABLE)/1(ENABLE)	0	FIX	*3
SOUND SYSTEM BG	S-BG	0(DISABLE)/1(ENABLE)	1	FIX	*3
PLAYBACK SECAM	P-SECAM	0(DISABLE)/1(ENABLE)	1	FIX	*3
FE (RF) NTSC 3.58	F-N358	0(DISABLE)/1(ENABLE)	0	FIX	*3
FE (RF) NTSC 4.43	F-N443	0(DISABLE)/1(ENABLE)	1	FIX	*3
FE (RF) SECAM	F-SECAM	0(DISABLE)/1(ENABLE)	1	FIX	*3
VIDEO MUTE AT IDENT LOSS	VMI	0(DISABLE)/1(ENABLE)	1	FIX	
VIDEO MUTE AT PROGRAM/SOURCE CHANGE	VMC	0(DISABLE)/1(ENABLE)	1	FIX	
HOTEL MODE	HTL	0(DISABLE)/1(ENABLE)	0	FIX	
REDUCED FM DEMODULATOR GAIN FOR BTSC SIGNAL	BTSC	0(DISABLE)/1(ENABLE)	0	FIX	
NUMBER OF EXTERNAL AV SOURCE	AV	0 FOR1 AV/1 FOR 2AV	1	FIX	
FM WINDOW SELECTION	FMWS	0(DISABLE)/1(ENABLE)	0	FIX	
SOUND MUTE BIT 0	SM0	0(DISABLE)/1(ENABLE)	1	FIX	
SOUND MUTE BIT 1	SM1	0(DISABLE)/1(ENABLE)	0	FIX	
THAI LANGUAGE	THA	0(DISABLE)/1(ENABLE)	0	FIX	*4
ARABIC LANGUAGE	ARA	0(DISABLE)/1(ENABLE)	1	FIX	*4
MALAY LANGUAGE	MAL	0(DISABLE)/1(ENABLE)	1	FIX	*4
CHINESE LANGUAGE	CHI	0(DISABLE)/1(ENABLE)	1	FIX	*4
FRENCH LANGUAGE	FRE	0(DISABLE)/1(ENABLE)	1	FIX	*4
RUSSIAN LANGUAGE	RUS	0(DISABLE)/1(ENABLE)	1	FIX	*4
FORCED V-SYNC SLICING LEVEL	FSL	0(DISABLE)/1(ENABLE)	0	FIX	
SYNC OF OSD	HP2	0(DISABLE)/1(ENABLE)	0	FIX	
RESERVED FOR LATAM:ODER:BRAZIL/ARGENTINA	OBA	0(BRAZIL)/1(ARGENINA)	0	FIX	
BILINGUAL	BIL	0(DISABLE)/1(ENABLE)	0	FIX	
IF AGC SPEED BIT 0	AGC0	0(DISABLE)/1(ENABLE)	1	FIX	
IF AGC SPEED BIT 1	AGC1	0(DISABLE)/1(ENABLE)	0	FIX	
PHI-1 TIME CONSTANT (RF)	FOA-FE	0(DISABLE)/1(ENABLE)	0	FIX	
PHI-1 TIME CONSTANT (RF)	FOB-FE	0(DISABLE)/1(ENABLE)	0	FIX	
PHI-1 TIME CONSTANT (OFF AIR)	FOA-AV	0(DISABLE)/1(ENABLE)	1	FIX	
PHI-1 TIME CONSTANT (OFF AIR)	FOB-AV	0(DISABLE)/1(ENABLE)	1	FIX	
TELETEXT	TXT	0(DISABLE)/1(ENABLE)	0	FIX	
TELETEXT WESTERN OR EASTERN CHAR	TXT-W/E	0(WESTERN)/1(EASTERN)	0	FIX	

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ	REMARK
TELETEXT PAN-EURO LANG	TXT-EUR	0(EURO)/1(OTHER)	0	FIX	
AN5890 PRESENT	AN5890	0(DISABLE)/1(ENABLE)	1	FIX	*6
AN5891 PRESENT	AN5891	0(DISABLE)/1(ENABLE)	0	FIX	*7
AN7396 PRESENT	AN7396	0(DISABLE)/1(ENABLE)	0	FIX	
NICAM DECODING ENABLED	NICAM	0(DISABLE)/1(ENABLE)	0	FIX	
IGR DECODING ENABLED	IGR	0(DISABLE)/1(ENABLE)	0	FIX	
GAME MODE ENABLED	GAME	0(DISABLE)/1(ENABLE)	0	FIX	
IF FREQ SELECTION	IF_38_0	0(38.9)/1(38.0)	0	FIX	
CHARGE PUMP	CP	0(FAST TUNE)/1(MODERATE TUNE)	0	FIX	*8
BASS MIX FOR ANXXXX	BM-ON	0(DISABLE)/1(ENABLE)	0	FIX	
BASS MIX EFFECT FOR ANXXXX	BM-EFF	0~3	2	FIX	
AGC FOR ANXXXX	AGC-ON	0(DISABLE)/1(ENABLE)	1	FIX	
AGC ADJUST FOR ANXXXX	AGC-ADJ	0~3	3	FIX	
NICAM AGC	AGC-N	0(ENABLE)/1(DISABLE)	0	FIX	
NICAM AGC GAIN ADJ	GAIN-N	0~31	0	FIX	
FM OUTPUT LEVEL	FM-LV	0~30	15	FIX	*10
IGR OUTPUT LEVEL	IGR-LV	0~30	16	FIX	*10
NICAM OUTPUT LEVEL (B/G)	B/G-NLV	0~30	13	FIX	*10
NICAM OUTPUT LEVEL (I)	I-NLV	0~30	18	FIX	*10
NICAM OUTPUT LEVEL (D/K)	D/K-NLV	0~30	13	FIX	*10
NICAM LOWER ERROR LIMIT	LOW ERR	0~255	35	FIX	*10
NICAM UPPER ERROR LIMIT	UP ERR	0~255	70	FIX	
IGR STEREO R CH GAIN ADJUST	IGR-STR	0~13	6	FIX	

Note :

*1 : For 20"/21" CDI=2.

*2 : After Adj Sub-Colour then change 1. COL-OP from 8 to 12.
2. COL-OS from 8 to 12.
3. COL-O3 from 4 to 8.
4. COL-O4 from 4 to 8.

Please aware that while Adj SUB-COL, upon those four items should be in initial condition.

*3 : Please refer to model specification.

*4 : Please refer to model specification.

*5 : Change SUB-SHP data from 32 to 20.

*6 : Switch off AN5890.

*7 : Switch on AN5891.

*8 : Change from 0 to 1.

*9 : Change SUB-CON data from 63 to 50.

*10 : Change FM-LV data from 15 to 21.
Change IGR-LV data from 16 to 23.
Change B/G-NLV data from 13 to 20.
Change I-NLV data from 18 to 25.
Change D/K-NLV data from 13 to 20.
Change LOW ERR data from 35 to 20.

*11 : When H-CENT adjust data is above 40, please re-adjust again, starting from adjust purity magnet position so that the H-CENT data will below 40.
Before adjust purity magnet H-CENT data must return to initial (32) condition.

INITIAL SETTING

(1) In service mode, After execute select POS 1, store the following tuning data in E^2PROM.

MCL1			MCL2			MCL3		
CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS
0			0	590.25	B/G	0		
1	48.25	B/G	1	46.25	B/G	1	48.25	B/G
2	62.25	B/G	2	64.25	B/G	2	59.25	D/K
3	77.25	D/K	3	86.25	B/G	3	65.75	D/K
4	175.25	B/G	4	95.25	B/G	4	77.25	D/K
5	182.25	B/G	5	138.25	B/G	5	85.25	D/K
6	183.25	D/K	6	175.25	B/G	6	93.25	D/K
7	191.25	D/K	7	182.25	B/G	7	175.25	B/G
8	196.25	B/G	8	189.25	B/G	8	184.25	D/K
9	199.25	M	9	196.25	B/G	9	199.25	D/K
10	210.25	B/G	10	209.25	B/G	10	210.25	B/G
11	224.25	B/G	11	216.25	B/G	11	224.25	B/G
12	471.25	B/G	12			12	487.25	I
13	487.25	I	13			13	503.25	I
14	503.25	B/G	14			14	575.25	B/G
15	575.25	B/G	15			15	639.25	D/K
16	583.25	B/G	16			16	767.25	D/K
17	599.25	B/G	17			17	831.25	D/K
18	621.25	M	18			18	855.25	I
19	639.25	D/K	19			19	91.25	M
20	703.25	B/G	20			20	97.25	M
21	735.25	I	21			21	183.25	M
22	767.25	B/G	22			22	193.25	M
23	815.25	B/G	23			23	211.25	M
24	855.25	I	24			24	217.25	M
25	855.25	B/G	25			25	477.25	M
26	55.25	M	26			26	693.25	M
27	83.25	M	27			27	62.25	B/G
28	183.25	M	28	527.25	B/G	28	503.25	B/G
29	193.25	M	29			29	527.25	B/G
30	217.25	M	30			30	599.25	B/G
31	471.25	M	31			31	621.25	M
32	477.25	M	32			32	815.25	B/G
33	693.25	M	33			33	112.25	B/G
34	41.1	M	34			34	168.25	B/G
35	112.25	B/G	35			35		
36	168.25	B/G	36			36	294.25	B/G
37			37	590.25	B/G	37	463.25	B/G
38	294.25	B/G	38			38	174.95	B/G
39	463.25	B/G	39			39	175.55	B/G
40			40			40		
41	647.25	B/G	41	48.25	B/G	41		
42	663.25	B/G	42	62.25	B/G	42		
43	679.25	B/G	43	77.25	D/K	43		
44	174.95	B/G	44	175.25	B/G	44		
45	175.55	B/G	45	183.25	D/K	45		
46			46	191.25	D/K	46		
47			47	210.25	B/G	47		
48			48	224.25	B/G	48		
49			49	487.25	I	49		
50			50	503.25	B/G	50		
51			51	575.25	B/G	51		
52			52	599.25	B/G	52		
53			53	621.25	M	53		
54			54	639.25	D/K	54		
55			55	735.25	I	55		
56			56	767.25	B/G	56		
57			57	815.25	B/G	57		
58			58	855.25	I	58		
59			59	91.25	M	59		
60			60	183.25	M	60		
61			61	193.25	M	61		
62			62	217.25	M	62		
63			63	471.25	M	63		
64			64	693.25	M	64		
65			65	112.25	B/G	65		
66			66	168.25	B/G	66		
67			67	294.25	B/G	67		
68			68	463.25	B/G	68		
69			69	174.95	B/G	69		
70			70	175.55	B/G	70		

SHIPPING SETTING & CHECKING

(1) The following default data has been factory-set for the E^2PROM.

ITEMS	DATA SETTING
LAST PROGRAM/CHANNEL	1
FLASHBACK PROGARM/CH	1
DIGIT	2 DIGIT
C-SYSTEM	AUTO
S-SYSTEM	1*
SKIP	OFF
AFC	ON
VOLUME	1
CONTRAST	60 (MAX)
COLOUR	0 (CENTER)
BRIGHTNESS	0 (CENTER)
TINT	0 (CENTER)
SHARPNESS	0 (CENTER)
WHITE TEMP	STANDARD
REMINDER TIMER	In-active, "--:--"
ON TIMER	In-active, "--:--"
OFF TIMER	In-active, "--:--"
LAST POWER	POWER-ON
LANGUAGE	1*
BLUE BACK MUTE	ON
HOTEL MODE	OFF
0 CHANNEL SKIP	ON
LAST TV/AV	TV
BASS/TRE/BAL	CENT
SURROUND	OFF
SURROUND LEVEL	CENT

*1: Please refer defaults for LANGUAGE and SOUND SYSTEM per MODEL as follows,

MODEL	LANGAUGE	SOUND SYSTEM
1	CHINESE	D/K
2	CHINESE	I
3	ENGLISH	B/G
4	ARABIC	B/G
5	RUSSIAN	D/K
6	MALAY	B/G
7	FRENCH	D/K
8	ENGLISH	B/G
9	THAI	B/G

After pressing "MODEL SETTING", 0 Channel will be skipped.

FACTORY SETTING BY MODEL

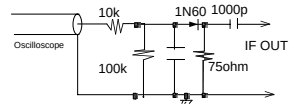
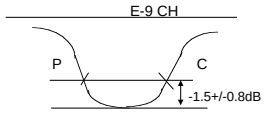
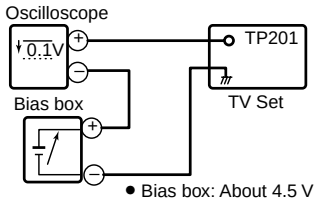
(Reference: Geomagnetism Adjustment)

Model	Magneic field (V, H) nT		Background	LANG.	S-SYS	LANG QTY
B	20,000	40,000	12,300°K	CHINESE	I	*(1)
C (Singapore)	-10,000	40,000	12,300°K	ENGLISH	B/G	*(1)
F	-10,000	40,000	12,300°K	ENGLISH	B/G	*(5)
G	30,000	20,000	18,000°K	ARABIC	B/G	*(5)

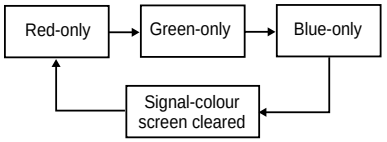
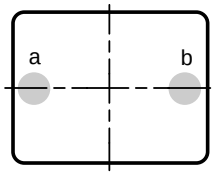
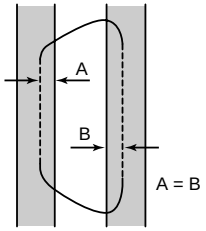
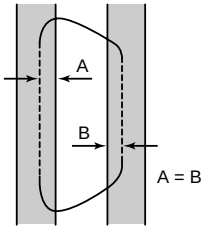
*Note for OSD type

(1): English/Chinese/Malay
(2): English/French/Arabic/Russian
(3): English/Chinese/French/Arabic/Malay
(4): English/Russian
(5): English/Chinese/French/Arabic/Malay/Russian

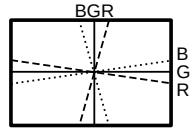
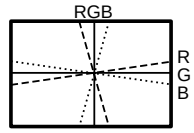
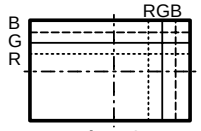
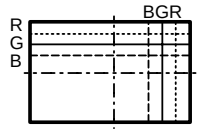
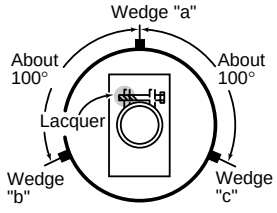
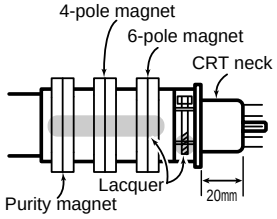
PIF ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**Tuner IFT (PRESET)**	1. Get the tuner ready to receive the E-9 CH signal, but with no signal input. Adjust the PLL data. 2. Connect the sweep generator's output cable to the tuner antenna. (RF SWEEP) 3. Adjust the sweep generator's to 80dBµV. 4. Connect the response lead (use LOW IMPEDANCE probe with wave detector; see **Fig.1**) to the tuner's IF output terminal. (This terminal must have the probe alone connected). 5. Set the RF AGC to 0 - 6 V with no saturation with the waveform. 6. Adjust the tuner IF coil to obtain the waveform as shown in **Fig. 2**. **Note: Be sure to keep the tuner cover in position during this adjustment.**	 **Fig. 1**  **Fig. 2**
2	**RF-AGC TAKE OVER POINT ADJUSTMENT (I²C BUS CONTROL)**	1. Receive the PAL colour bar signal. • Signal Strength: 57 ±1 dBµV (75 ohm open) 2. Connect the oscilloscope to TP201 (Tuner's AGC Terminal) as shown in **Fig. 3**.  • Bias box: About 4.5 V **Fig. 3** 3. Call the "AG" mode in service mode. Adjust the "AG" bus data to obtain the Tuner output pin drop 0.1 V below maximum voltage. 4. Change the antenna input signal to 63~67dBµV, and make sure there is no noise. 5. Turn up the input signal to 90~95 dBµV to be sure that there is no cross modulation beat.	**Note:** **For the 50 ohm signal strength gauge, when not using 50/75 impedance adapter, signal strength is 54 ±1 dBµV(75 ohm open), instead of 57 ±1 dBµV (75 ohm open).** **Precaution:** **The loss of using impedance adapter**

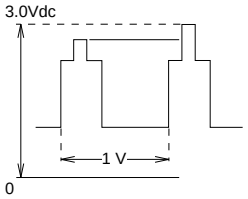
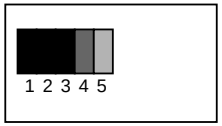
PURITY ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**PURITY ADJ.**	1. Receive the GREEN-ONLY signal. Adjust the beam current to about 700 µA. 2. Degauss the CRT enough with the degausing coil. Note: Follow the Job Instruction Sheet to adjust the magnetic field. **Vertical Bv : -0.030 mT (-0.30 gauss)** **Horizontal Bh : +0.020 mT (0.20 gauss)** 3. Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted. 4. Observe the points a and b as shown in **Fig. 4-1** through the microscope. Adjust the landing to the rank A requirement. 5. Orient the raster rotation to 0 eastward. 6. Tighten up the deflection coil screws. ● Tightening torque: 108 ± 20 N (11 ± 2 kgf) 7. Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to correct it. **Note: This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700 µA.** **Note: Set the service mode by TP1001 & TP1002 (short) then press factory process R/C RGB key to change to RGB mono colour mode.** * For the following colours press R/C RGB key to change. 	 **Fig. 4-1**  **Fig. 4-2** Rank "A" (on the right of the CRT)  **Fig. 4-3** Rank "A" (on the left of the CRT) * Press R/C RGB key for 1 second in NORMAL MODE, the colour will change to RGB mono colour mode.

CONVERGENCE ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**CONVERGENCE ADJ. (To be done after the purity adjustment.)**	1. Receive the Crosshatch Pattern signal. 2. Using the remote controller, call NORMAL mode. **Static Convergence** 1. Turn the 4-pole magnet to a proper opening angle in order to superpose the blue and red colours. 2. Turn the 6-pole magnet to a proper opening angle in order to superpose the green colour over the blue and red colours. **Dynamic Convergence** 1. Adjust the convergence on the fringes of the screen in the following steps. **a) Fig. 5-1: Drive the wedge at point "a" and swing the deflection coil upward.** **b) Fig. 5-2: Drive the wedge at points "b" and "c" and swing the deflection coil downward.** **c) Fig. 5-3: Drive the "c" wedge deeper and swing the deflection coil rightward.** **d) Fig. 5-4: Drive the "b" wedge deeper and swing the deflection coil leftward.** 2. Fix all the wedges on the CRT and apply glass tape over them. 3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole, 6-pole magnets) and magnet unit lock screw. Finally received the Red-only and Blue-only signals to make sure there is no other colours on the screen.	 **Fig. 5-1**  **Fig. 5-2**  **Fig. 5-3**  **Fig. 5-4**  **Fig. 5-5**  **Fig. 5-6**

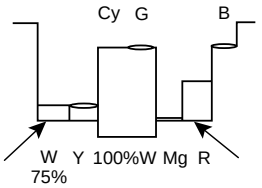
CRT CUT-OFF, BACKGROUND AND SUB-CONTRAST ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**CRT CUTOFF ADJUSTMENT (I²C BUS CONTROL)**	1. Switch TV to VIDEO mode, BLUE BACK OFF with NO VIDEO signal. 2. Press R/C to set Picture Normal condition. 3. Connect the oscilloscope to Red OUT from IC801.(TP852) Range : 1 V/Div (DC) Sweep : 5 msec/Div 4. Adjust SCREEN VR, so that the tip of signal reach 3.0 +0.1 Vdc.	 **Fig. 6**
2	**SUB-BRIGHTNESS ADJUSMENT (I²C BUS CONTROL)**	1. Call "SUB-BRI" in service mode. (Receive the crosshatch pattern with 5 black level windows) 2. Adjust the "SUB BRIGHT" bus data in order that the line 1, 2 and 3 have the same darkness wherelse line 4 is slightly brighter than line 1, 2 and 3 and finally line 5 will be the brighter than line 4.	 1, 2 and 3 are in same black level. **Fig. 7**
3	**WHITE BALANCE SERVICE MODE ADJ. (I²C BUS CONTROL)**	1. Receive the White pattern with Burst signal. 2. Press R/C to set Picture NORMAL condition. 3. Connect the DC miliammeter between the TP602 (-) and TP603 (+). 4. Check Beam current should be around 1,100 µA. 5. Set it to service mode and adjust the " WPG" (White Point-G), "WPB" (White Point-B) data to have a colour temperature of 12,300°K (white). *** Note** . 6. Receive "White" pattern, with BURST Signal, and set Brightness Y by generator, to ** 10 cd/m² (Minolta CA-100) by reducing Luminate Y signal. 7. Adjust "CUT-R" & "CUT-G" to get 12,300°K. Then go back normal mode (High Bright**) to check colour temperature. If out of range, back to (1). **Note: This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700µA.** * Adjust DRI-GC/GW, DR-BC/BW as following data, after finishing DRI-GS and DRI-BS: DRI-RW=32 (FIXED), DRI-GW="DRI-GS"-7*, DRI-BW="DRI-BS"-7* DRI-RC=25 (FIXED), DRI-BC="DRI-BS", DRI-GC="DRI-GS"-7 ** Low=10 cd/m²: High=120 cd/m²	* 7,500°K X : 0.300 Y : 0.310 * 12,300°K X : 0.272 Y : 0.275 (Minolta colour analyzer CA-100) ***Note: Above Data can be UP/ DOWN by Volume key.** * 7,500°K DRI-GW="DRI/GS"-5 DRI-BW="DRI/BS"-5 * 12,300°K DRI-GW="DRI/GS"-7 DRI-BW="DRI/BS"-7
4	**Maximum beam check**	1. Receive the monoscope pattern signal. 2. Press R/C to set Picture NORMAL condition. 3. Connect the DC miliammeter between TP603 (+) and TP602 (–). (Full Scale: 3 mA Range) 4. Beam current must be within 1,100 ±100 µA.	

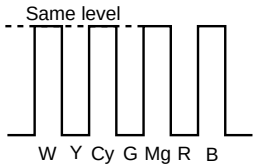
HORIZONTAL AND VERTICAL DEFLECTION LOOP ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**V-SLOPE (I²C BUS CONTROL)**	1. Receive the monoscope pattern signal. 2. Call the "V-LIN" mode. 3. Increase or decrease "V-LIN" by Volume key till the horizontal line in the center of monoscope is just at the position where the blanking starts.	
2	**V-SHIFT-50 (I²C BUS CONTROL)**	1. Call the "V-CENT" mode. 2. Increase or decrease "V-CENT" by Volume key till the picture is centered.	
3	**V - AMP 50 (I²C BUS CONTROL)**	1. Call the "V-AMP" mode. 2. Increase or decrease "V- AMP" by Volume key to set overscan of 9.5% typical. Adjustment Spec. 9.5% range +1% -0%.	
4	**S-CORREC-TION (I²C BUS CON-TROL)**	**FIXED DATA, NO NEED TO ADJUST.**	
5	**H-SHIFT (50) (H-CENTER) (I²C BUS CONTROL)**	1. Call the "H-CENT" mode. 2. Increase or decrease "H-CENT" by Volume key to center the picture horizontal.	
6	**Focus**	1. Receive the monoscope pattern signal. 2. Press R/C to set Picture NORMAL condition. 3. Adjust the focus control to get the best focus.	

PAL CHROMA ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**SUB COLOUR (I²C BUS CONTROL)**	1. Receive the PAL colour bar signal. 2. Press R/C to set Picture Normal condition. 3. Connect the oscilloscope to Red cathode (C881 and R885). • Range : 20 V/div. (AC) (Use 10:1 probe) • Sweep time : 10 µsec/div. 4. Using the R/C call "SUB COL" in SERVICE mode. Adjust SUB COLOUR bus data, so that the 75% White & Red portions of PAL Colour Bar be at the same level shown as **Fig. 8**. 5. Clear the SERVICE mode. * Before adjust SUB COL, COL-OP=8, COL-OS=8, COL-O3=4, COL-O4=4 After adjust SUB COL, set COL-OP=12, COL-OS=12, COL-O3=8, COL-O4=8	 **Fig. 8**

NTSC CHROMA ADJUSTMENT

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**SUB-TINT (I²C BUS CONTROL)**	1. Receive the NTSC3.58 colour bar signal through AV in. 2. Connect the oscilloscope to TP853 (Pin (5) of P882) BLUE-OUT. ● Range : 100mV/div. (AC)(Use Probe 10:1) ● Sweep time : 10 µsec/div. 3. Call the "SUB-TINT" mode in service mode. Adjust the "SUB-TINT" bus data to obtain the waveform shown as **Fig. 9**. 4. Clear the SERVICE mode.	 **Fig. 9**

PROTECTOR OPERATION CHECKING

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**BEAM PROTECTOR**	1. Receive the monoscope pattern signal. 2. Set CONTRAST MAX. 3. Set BRIGHT MAX. 4. During the Collector & Emitter of Q883/5/7 short, make sure the protector ON and switch to standby mode.	* Select one of Q883/5/7 to do each short test.
2	**H, V PROTECTOR**	1. Receive the monoscope pattern signal. 2. Connect output of Bias Box to D607 cathode (R606 side). 3. Set voltage of Bias Box to 18V and make sure the protector is not work. 4. Set voltage of Bias Box to 27V, and make sure the protector is work.	
3	**Other protectors**	1. Once finish rectified Electrolytic Capacitor short testing in +B line, check all possible damaged components on +B line. (Use random selected set for inspection)	

A/V INPUT AND OUTPUT CHECKING

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**VIDEO AND AUDIO OUTPUT CHECK**	1. Receive the PAL colour bar signal (100% White Colour Bar, Sound 400 Hz 100% Mod.) 2. Terminate the Video output with a 75 ohm impedance. Make sure the output is as specified (1.0 Vp-p ±3 dB). 3. Terminate the Audio output with a 10k ohm impedance. Make sure the output is as specified (1.76 Vp-p ±3 dB).	
2	**VIDEO AND AUDIO INPUT CHECK**	1. Using the TV/AV key on the remote controller, make sure that the modes change in order of TV, AV1, AV2 & TV again and the video & audio output are according to the input terminal for each mode.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**CONTRAST key**	1. Receive the monoscope pattern signal. 2. Set P-Mode to select CONTRAST. 3. Press Volume Up/Down key to check whether the CONTRAST effect is OK or not.	
2	**COLOUR key**	1. Receive the colour bar signal. 2. Set P-Mode to select COLOUR. 3. Press Volume Up/Down key to check whether the COLOUR effect is OK or not.	
3	**BRIGHTNESS key**	1. Receive the monoscope pattern signal. 2. Set P-Mode to select BRIGHTNESS. 3. Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not	
4	**TINT key**	1. Receive the NTSC colour bar signal thru AV in. 2. Set P-Mode to select TINT. 3. Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for PURPLE direction whether is OK or not.	
5	**SHARPNESS Key**	1. Receive the monoscope pattern signal. 2. Set P-mode to select SHARPNESS. 3. Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not.	
6	**CH DISPLAY COLOUR**	1. All Ch (1~99) will have an OSD display of the channel number in green colour under AFT ON condition.	
7	**NORMAL Key**	1. Once in PICTURE Mode, and the NORMAL key is pressed, all the settings will be present to normal setting. (Normal setting value for every mode). ● CONTRAST : MAX TREBLE : CENTER ● COLOUR : CENTER BASS : CENTER ● BRIGHTNESS : CENTER SURROUND : OFF ● TINT : CENTER SURROUND LEVEL : CENTER ● SHARPNESS : CENTER BALANCE : CENTER	**Note: If nothing is display mean contrast, colour, bright, tint or sharpness are all in normal setting.**
8	**White Temp**	1. Receive the monoscope pattern signal. 2. Set P-mode to select WHITE TEMP. 3. Press Volume Up/Down key to check WHITE TEMP Option, STANDARD: NORMAL SETTING, WARM for more REDDISH direction changing, COOL for more BLUISH direction changing.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO) (Continued)

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
9	**Colour system**	1. Receive the PAL colour bar signal, select the COLOUR SYSTEM key to select modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly. 2. Receive the SECAM colour bar signal, select the COLOUR SYSTEM key to select modes except SECAM, check the COLOUR is not working properly. Then, select the "SECAM" mode. Check again its colour so that it is working properly. 3. Receive the NTSC 4.43 signal, select the COLOUR SYSTEM key to select modes except NTSC 4.43, check the COLOUR is not working properly. Then, select the "NTSC 4.43" mode. Check again its colour so that it is working properly. 4. Receive the NTSC 4.43/3.58 colour bar signal thru AV, select the COLOUR SYSTEM key to select modes except N4.43/3.58, check the COLOUR is not working properly. Then, select the "NTSC 4.43/3.58" mode. Check again its colour so that it is working properly.	
10	**SOUND SYSTEM**	1. Receive the PAL-D/K signal, select the "SOUND SYSTEM" turn to B/G, I. Check the sound output is not working properly. Select D/K and check the sound output to make sure it is working properly. 2. Receive the PAL-I signal, select the "SOUND SYSTEM" turn to B/G, D/K. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly. 3. Receive PAL-B/G signal, select the "SOUND SYSTEM" turn to I, D/K. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly.	
11	**NOISE MUTE CHECKING**	1. Receive the PAL colour bar signal. 2. Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state. 3. Check the sound mute is effective. 4. Finally turn sound level of CTV to minimum.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO) (Continued)

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
12	**OSD LANGUAGE QUANTITY CHECK**	Check OSD LANGUAGE quantity and type for respect model. MODEL / QUANTITY / ENGLISH / RUSSIAN / CHINESE / FRENCH / ARABIC / MALAY B / 3 / O / — / O / — / — / O C / 3 / O / — / O / — / — / O F / 6 / O / O / O / O / O / O G / 6 / O / O / O / O / O / O	
13	**SOUND CONTROL (BASS/TRE/ BAL)**	1. Receive the monoscope pattern signal. 2. Set P-Mode to select the "BASS", "TRE" and "BAL". 3. Select each item, and press Vol. Up/Down Key to check the sound effect."	
14	**SURROUND FUNCTION CHECKING**	1. Receive the music signal. 2. Press SURROUND Key to select the following mode. SURROUND OFF ↓ SURROUND 1 (Check SURROUND sound effect) Check the level of SURROUND 1 effect by increasing and decreasing the level control. 3. Receive the music signal and press SURROUND Key to select the following mode. SURROUND 2 (Check MONO sound effect)	

HEADPHONE JACK CHECKING

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	**HEADPHONE OUTPUT CHECKING**	1. Receive the PAL colour bar with SOUND 400Hz, 100% Modulation (±50 kHz Dev). 2. Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker.	

MEMORY MAP

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS			CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
00	PASS WORD								55	00-FF							
01	PASS WORD								41	00-FF							
02	PASS WORD								53	00-FF							
03	PASS WORD								36	00-FF							
04																	
05																	
06	AGC TAKE-OVER								0E	00-3F							
07	V-SLOPE								20	00-3F							
08	V-SLOPE								20	00-3F							
09	V-CENTER								20	00-3F							
0A	H-CENTER								20	00-3F							
0B	H-SIZE								20	00-3F							
0C	EW-PARALLELOGRAM								20	00-3F							
0D	EW-PARABOLA/WIDTH								20	00-3F							
0E	EW-UPPER CORNER								20	00-3F							
0F	EW-LOWER CORNER								20	00-3F							
10	EW-TRAPEZIUM								20	00-3F							
11	HORIZONTAL-BOW								20	00-3F							
12	S-CORRECTION								00	00-3F							
13																	
14																	
15																	
16	DRIVE-R (STANDARD)								20	00-3F							
17	DRIVE-G (STANDARD)								20	00-3F							
18	DRIVE-B (STANDARD)								20	00-3F							
19	DRIVE-R (WARM)								20	00-3F							
1A	DRIVE-G (WARM)								20	00-3F							
1B	DRIVE-B (WARM)								20	00-3F							
1C	DRIVE-R (COOL)								19	00-3F							
1D	DRIVE-G (COOL)								20	00-3F							
1E	DRIVE-B (COOL)								20	00-3F							
1F																	
20																	
21																	
22	SUB-VOLUME								3C	00-3C							
23	SUB-CONTRAST								3F	00-3F							
24	SUB-COLOUR								20	00-3F							
25	SUB-BRIGHTNESS								20	00-3F							
26	SUB-TINT								20	00-3F							
27	SUB-SHARPNESS								20	00-3F							
28	HTL-VOLUME								1E	00-3C							
29	HTL-PROGRAM-NUMBER								FF	00-FF							
2A																	
2B																	
2C	BLUE BACK CONTRAST								0A	00-0F							
2D	OSD-REFERENCE								0F	00-0F							
2E	CUTOFF LEVEL -OFFSET R								08	00-0F							
2F	CUTOFF LEVEL -OFFSET G								08	00-0F							
30	CATHODE DRIVE LEVEL								00	00-0F							
31	Y-DELAY (TV PAL)								0C	00-0F							
32	Y-DELAY (TV SECAM)								0F	00-0F							
33	Y-DELAY (TV N358)								0C	00-0F							
34	Y-DELAY (TV N443)								0C	00-0F							
35	Y-DELAY (TV BW)								0C	00-0F							
36	Y-DELAY (AV PAL)								0C	00-0F							
37	Y-DELAY (AV SECAM)								0F	00-0F							
38	Y-DELAY (AV N358)								0C	00-0F							
39	Y-DELAY (AV N443)								0C	00-0F							
3A	Y-DELAY (AV BW)								0C	00-0F							
3B	COLOUR-OFFSET (PAL)								08	00-0F							
3C	COLOUR-OFFSET (SECAM)								08	00-0F							
3D	COLOUR-OFFSET (N358)								04	00-0F							
3E	COLOUR-OFFSET (N443)								04	00-0F							
3F	SHARPNESS-OFFSET (PAL)								08	00-0F							
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS			CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
40	SHARPNESS-OFFSET (SECAM)								04	00-0F							
41	SHARPNESS-OFFSET (N358)								0C	00-0F							
42	SHARPNESS-OFFSET (N443)								08	00-0F							
43																	
44																	
45																	
46								BM-ON	00	00-01							
47	BM-EFFECT								02	00-03							
48								AGC-ON	01	00-01							
49	AGC ADJUST								03	00-03							
4A																	
4B																	
4C								AGC-N	00	00-01							
4D	GAIN-N								00	00-1F							
4E	FM OUTPUT LEVEL								0F	00-1E							
4F	IGR OUTPUT LEVEL								10	00-1E							
50	NICAM OUTPUT LEVEL (B/G)								0D	00-1E							
51	NICAM OUTPUT LEVEL (I)								12	00-1E							
52	NICAM OUTPUT LEVEL (D/K)								0D	00-1E							
53	NICAM LOWER ERROR LIMIT								23	00-FF							
54	NICAM UPPER ERROR LIMIT								46	00-FF							
55	IGR STEREO R CH GAIN ADJ.								06	00-0F							
56																	
57																	
58	OP_FCO	OP_ACL	OP_OSO	OP_EHT	OP_EVG	OP_FFI	OP_AVL	OP_BKS	1B	00-FF							
59	OP_FSECAM	OP_FN443	OP_F358	OP_PSECAM	OP_S_BG	OP_S_I	OP_S_DK	OP_S_M	DE	00-FF							
5A	OP_SM1	OP_SM0	OP_FMWS	OP_AV	OP_BTSC	OP_HTL	OP_VMC	OP_VMI	53	00-FF							
5B	OP_HP2	OP_FSL	OP_RUS	OP_FRE	OP_CHI	OP_MAL	OP_ARA	OP_THA	3E	00-FF							
5C	OP_TXT_WE	OP_TXT	OP_FOB_AV	OP_FOA_AV	OP_FOB_FE	OP_FOA_FE	OP_AGC1	OP_AGC0	31	00-FF							
5D	OP_IGR	OP_NICAM	OP_AN7396	OP_AN5891	OP_AN5890	OP_CP	OP_IF38_0	OP_TXT_EU	08	00-FF							
5E							OP_BIL	OP_GAME	00	00-02							
5F																	
60	LAST VOLUME								01	00-3C							
61	LAST BALANCE								1E	00-3C							
62	LAST BASS								1E	00-3C							
63	LAST TREBLE								1E	00-3C							
64							LAST SURR ON/OFF		00	00-02							
65	LAST SURROUND LEVEL								1E	00-3C							
66							LAST SPAT ON/OFF		00	00-02							
67	LAST SPATIALIZER LEVEL								1E	00-3C							
68																	
69	LAST CONTRAST								3C	00-3C							
6A	LAST COLOUR								1E	00-3C							
6B	LAST BRIGHTNESS								1E	00-3C							
6C	LAST TINT								1E	00-3C							
6D	LAST SHARPNESS								1E	00-3C							
6E							LAST WHITE_TEMP		00	00-02							
6F																	
70	LAST BALANCE-G								1E	00-3C							
71	LAST BASS-G								1E	00-3C							
72	LAST TREBLE-G								1E	00-3C							
73							LAST SURR ON/OFF-G		00	00-02							
74	LAST SURROUND LEVEL-G								1E	00-3C							
75							LAST SPAT ON/OFF-G		00	00-02							
76	LAST SPATIALIZER LEVEL-G								1E	00-3C							
77																	
78	LAST CONTRAST-G								3C	00-3C							
79	LAST COLOUR-G								1E	00-3C							
7A	LAST BRIGHTNESS-G								1E	00-3C							
7B	LAST TINT-G								1E	00-3C							
7C	LAST SHARPNESS-G								1E	00-3C							
7D							LAST WHITE_TEMP-G		00	00-02							
7E																	
7F	FLAST PROGRAM/SOURCE								01	00-66							
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS			CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE		CHECK DATA	CHECK TYPE	SETTING DATA	
80	FAVOURITE PROGRAM RED								0A	00-FF								
81	FAVOURITE PROGRAM GREEN								14	00-FF								
82	FAVOURITE PROGRAM YELLOW								1E	00-FF								
83	FAVOURITE PROGRAM CYAN								28	00-FF								
84								POWER										
85								B_BACK										
86								POWER	01	00-01								
87								B_BACK	00	00-01								
88							LANGUAGE		00	00-06								
89	DIGIT								80	00-80								
8A																		
8B																		
8C	REMINDER								00	00-4D								
8D	OFF TIMER								00	00-4D								
8E	ON TIMER								00	00-4D								
8F	FADE IN VOLUME								FF	00-FF								
90								TMR_FLAG	00	00-01								
91																		
92																		
93	SKIP 0	SKIP 1	SKIP 2	SKIP 3	SKIP 4	SKIP 5	SKIP 6	SKIP 7	80	00-FF								
94	SKIP 8	SKIP 9	SKIP 10	SKIP 11	SKIP 12	SKIP 13	SKIP 14	SKIP 15	00	00-FF								
95	SKIP 16	SKIP 17	SKIP 18	SKIP 19	SKIP 20	SKIP 21	SKIP 22	SKIP 23	00	00-FF								
96	SKIP 24	SKIP 25	SKIP 26	SKIP 27	SKIP 28	SKIP 29	SKIP 30	SKIP 31	00	00-FF								
97	SKIP 32	SKIP 33	SKIP 34	SKIP 35	SKIP 36	SKIP 37	SKIP 38	SKIP 39	00	00-FF								
98	SKIP 40	SKIP 41	SKIP 42	SKIP 43	SKIP 44	SKIP 45	SKIP 46	SKIP 47	00	00-FF								
99	SKIP 48	SKIP 49	SKIP 50	SKIP 51	SKIP 52	SKIP 53	SKIP 54	SKIP 55	00	00-FF								
9A	SKIP 56	SKIP 57	SKIP 58	SKIP 59	SKIP 60	SKIP 61	SKIP 62	SKIP 63	00	00-FF								
9B	SKIP 64	SKIP 65	SKIP 66	SKIP 67	SKIP 68	SKIP 69	SKIP 70	SKIP 71	00	00-FF								
9C	SKIP 72	SKIP 73	SKIP 74	SKIP 75	SKIP 76	SKIP 77	SKIP 78	SKIP 79	00	00-FF								
9D	SKIP 80	SKIP 81	SKIP 82	SKIP 83	SKIP 84	SKIP 85	SKIP 86	SKIP 87	00	00-FF								
9E	SKIP 88	SKIP 89	SKIP 90	SKIP 91	SKIP 92	SKIP 93	SKIP 94	SKIP 95	00	00-FF								
9F	SKIP 96	SKIP 97	SKIP 98	SKIP 99					00	00-FF								
A0																		
A1																		
A2	IGR 0	IGR 1	IGR 2	IGR 3	IGR 4	IGR 5	IGR 6	IGR 7	FF	00-FF								
A3	IGR 8	IGR 9	IGR 10	IGR 11	IGR 12	IGR 13	IGR 14	IGR 15	FF	00-FF								
A4	IGR 16	IGR 17	IGR 18	IGR 19	IGR 20	IGR 21	IGR 22	IGR 23	FF	00-FF								
A5	IGR 24	IGR 25	IGR 26	IGR 27	IGR 28	IGR 29	IGR 30	IGR 31	FF	00-FF								
A6	IGR 32	IGR 33	IGR 34	IGR 35	IGR 36	IGR 37	IGR 38	IGR 39	FF	00-FF								
A7	IGR 40	IGR 41	IGR 42	IGR 43	IGR 44	IGR 45	IGR 46	IGR 47	FF	00-FF								
A8	IGR 48	IGR 49	IGR 50	IGR 51	IGR 52	IGR 53	IGR 54	IGR 55	FF	00-FF								
A9	IGR 56	IGR 57	IGR 58	IGR 59	IGR 60	IGR 61	IGR 62	IGR 63	FF	00-FF								
AA	IGR 64	IGR 65	IGR 66	IGR 67	IGR 68	IGR 69	IGR 70	IGR 71	FF	00-FF								
AB	IGR 72	IGR 73	IGR 74	IGR 75	IGR 76	IGR 77	IGR 78	IGR 79	FF	00-FF								
AC	IGR 80	IGR 81	IGR 82	IGR 83	IGR 84	IGR 85	IGR 86	IGR 87	FF	00-FF								
AD	IGR 88	IGR 89	IGR 90	IGR 91	IGR 92	IGR 93	IGR 94	IGR 95	FF	00-FF								
AE	IGR 96	IGR 97	IGR 98	IGR 99					FF	00-FF								
AF																		
B0																		
B1	NICAM 0	NICAM 1	NICAM 2	NICAM 3	NICAM 4	NICAM 5	NICAM 6	NICAM 7	FF	00-FF								
B2	NICAM 8	NICAM 9	NICAM 10	NICAM 11	NICAM 12	NICAM 13	NICAM 14	NICAM 15	FF	00-FF								
B3	NICAM 16	NICAM 17	NICAM 18	NICAM 19	NICAM 20	NICAM 21	NICAM 22	NICAM 23	FF	00-FF								
B4	NICAM 24	NICAM 25	NICAM 26	NICAM 27	NICAM 28	NICAM 29	NICAM 30	NICAM 31	FF	00-FF								
B5	NICAM 32	NICAM 33	NICAM 34	NICAM 35	NICAM 36	NICAM 37	NICAM 38	NICAM 39	FF	00-FF								
B6	NICAM 40	NICAM 41	NICAM 42	NICAM 43	NICAM 44	NICAM 45	NICAM 46	NICAM 47	FF	00-FF								
B7	NICAM 48	NICAM 49	NICAM 50	NICAM 51	NICAM 52	NICAM 53	NICAM 54	NICAM 55	FF	00-FF								
B8	NICAM 56	NICAM 57	NICAM 58	NICAM 59	NICAM 60	NICAM 61	NICAM 62	NICAM 63	FF	00-FF								
B9	NICAM 64	NICAM 65	NICAM 66	NICAM 67	NICAM 68	NICAM 69	NICAM 70	NICAM 71	FF	00-FF								
BA	NICAM 72	NICAM 73	NICAM 74	NICAM 75	NICAM 76	NICAM 77	NICAM 78	NICAM 79	FF	00-FF								
BB	NICAM 80	NICAM 81	NICAM 82	NICAM 83	NICAM 84	NICAM 85	NICAM 86	NICAM 87	FF	00-FF								
BC	NICAM 88	NICAM 89	NICAM 90	NICAM 91	NICAM 92	NICAM 93	NICAM 94	NICAM 95	FF	00-FF								
BD	NICAM 96	NICAM 97	NICAM 98	NICAM 99					FF	00-FF								
BE																		
BF																		
	MODEL									MODEL								
	LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS			CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE		CHECK DATA	CHECK TYPE	SETTING DATA	
C0	IGR_ST 0	IGR_ST 1	IGR_ST 2	IGR_ST 3	IGR_ST 4	IGR_ST 5	IGR_ST 6	IGR_ST 7	FF	00-FF								
C1	IGR_ST 8	IGR_ST 9	IGR_ST 10	IGR_ST 11	IGR_ST 12	IGR_ST 13	IGR_ST 14	IGR_ST 15	FF	00-FF								
C2	IGR_ST 16	IGR_ST 17	IGR_ST 18	IGR_ST 19	IGR_ST 20	IGR_ST 21	IGR_ST 22	IGR_ST 23	FF	00-FF								
C3	IGR_ST 24	IGR_ST 25	IGR_ST 26	IGR_ST 27	IGR_ST 28	IGR_ST 29	IGR_ST 30	IGR_ST 31	FF	00-FF								
C4	IGR_ST 32	IGR_ST 33	IGR_ST 34	IGR_ST 35	IGR_ST 36	IGR_ST 37	IGR_ST 38	IGR_ST 39	FF	00-FF								
C5	IGR_ST 40	IGR_ST 41	IGR_ST 42	IGR_ST 43	IGR_ST 44	IGR_ST 45	IGR_ST 46	IGR_ST 47	FF	00-FF								
C6	IGR_ST 48	IGR_ST 49	IGR_ST 50	IGR_ST 51	IGR_ST 52	IGR_ST 53	IGR_ST 54	IGR_ST 55	FF	00-FF								
C7	IGR_ST 56	IGR_ST 57	IGR_ST 58	IGR_ST 59	IGR_ST 60	IGR_ST 61	IGR_ST 62	IGR_ST 63	FF	00-FF								
C8	IGR_ST 64	IGR_ST 65	IGR_ST 66	IGR_ST 67	IGR_ST 68	IGR_ST 69	IGR_ST 70	IGR_ST 71	FF	00-FF								
C9	IGR_ST 72	IGR_ST 73	IGR_ST 74	IGR_ST 75	IGR_ST 76	IGR_ST 77	IGR_ST 78	IGR_ST 79	FF	00-FF								
CA	IGR_ST 80	IGR_ST 81	IGR_ST 82	IGR_ST 83	IGR_ST 84	IGR_ST 85	IGR_ST 86	IGR_ST 87	FF	00-FF								
CB	IGR_ST 88	IGR_ST 89	IGR_ST 90	IGR_ST 91	IGR_ST 92	IGR_ST 93	IGR_ST 94	IGR_ST 95	FF	00-FF								
CC	IGR_ST 96	IGR_ST 97	IGR_ST 98	IGR_ST 99					FF	00-FF								
CD																		
CE																		
CF	IGR_MA 0	IGR_MA 1	IGR_MA 2	IGR_MA 3	IGR_MA 4	IGR_MA 5	IGR_MA 6	IGR_MA 7	FF	00-FF								
D0	IGR_MA 8	IGR_MA 9	IGR_MA 10	IGR_MA 11	IGR_MA 12	IGR_MA 13	IGR_MA 14	IGR_MA 15	FF	00-FF								
D1	IGR_MA 16	IGR_MA 17	IGR_MA 18	IGR_MA 19	IGR_MA 20	IGR_MA 21	IGR_MA 22	IGR_MA 23	FF	00-FF								
D2	IGR_MA 24	IGR_MA 25	IGR_MA 26	IGR_MA 27	IGR_MA 28	IGR_MA 29	IGR_MA 30	IGR_MA 31	FF	00-FF								
D3	IGR_MA 32	IGR_MA 33	IGR_MA 34	IGR_MA 35	IGR_MA 36	IGR_MA 37	IGR_MA 38	IGR_MA 39	FF	00-FF								
D4	IGR_MA 40	IGR_MA 41	IGR_MA 42	IGR_MA 43	IGR_MA 44	IGR_MA 45	IGR_MA 46	IGR_MA 47	FF	00-FF								
D5	IGR_MA 48	IGR_MA 49	IGR_MA 50	IGR_MA 51	IGR_MA 52	IGR_MA 53	IGR_MA 54	IGR_MA 55	FF	00-FF								
D6	IGR_MA 56	IGR_MA 57	IGR_MA 58	IGR_MA 59	IGR_MA 60	IGR_MA 61	IGR_MA 62	IGR_MA 63	FF	00-FF								
D7	IGR_MA 64	IGR_MA 65	IGR_MA 66	IGR_MA 67	IGR_MA 68	IGR_MA 69	IGR_MA 70	IGR_MA 71	FF	00-FF								
D8	IGR_MA 72	IGR_MA 73	IGR_MA 74	IGR_MA 75	IGR_MA 76	IGR_MA 77	IGR_MA 78	IGR_MA 79	FF	00-FF								
D9	IGR_MA 80	IGR_MA 81	IGR_MA 82	IGR_MA 83	IGR_MA 84	IGR_MA 85	IGR_MA 86	IGR_MA 87	FF	00-FF								
DA	IGR_MA 88	IGR_MA 89	IGR_MA 90	IGR_MA 91	IGR_MA 92	IGR_MA 93	IGR_MA 94	IGR_MA 95	FF	00-FF								
DB	IGR_MA 96	IGR_MA 97	IGR_MA 98	IGR_MA 99					FF	00-FF								
DC																		
DD																		
DE	NIC_ST 0	NIC_ST 1	NIC_ST 2	NIC_ST 3	NIC_ST 4	NIC_ST 5	NIC_ST 6	NIC_ST 7	FF	00-FF								
DF	NIC_ST 8	NIC_ST 9	NIC_ST 10	NIC_ST 11	NIC_ST 12	NIC_ST 13	NIC_ST 14	NIC_ST 15	FF	00-FF								
E0	NIC_ST 16	NIC_ST 17	NIC_ST 18	NIC_ST 19	NIC_ST 20	NIC_ST 21	NIC_ST 22	NIC_ST 23	FF	00-FF								
E1	NIC_ST 24	NIC_ST 25	NIC_ST 26	NIC_ST 27	NIC_ST 28	NIC_ST 29	NIC_ST 30	NIC_ST 31	FF	00-FF								
E2	NIC_ST 32	NIC_ST 33	NIC_ST 34	NIC_ST 35	NIC_ST 36	NIC_ST 37	NIC_ST 38	NIC_ST 39	FF	00-FF								
E3	NIC_ST 40	NIC_ST 41	NIC_ST 42	NIC_ST 43	NIC_ST 44	NIC_ST 45	NIC_ST 46	NIC_ST 47	FF	00-FF								
E4	NIC_ST 48	NIC_ST 49	NIC_ST 50	NIC_ST 51	NIC_ST 52	NIC_ST 53	NIC_ST 54	NIC_ST 55	FF	00-FF								
E5	NIC_ST 56	NIC_ST 57	NIC_ST 58	NIC_ST 59	NIC_ST 60	NIC_ST 61	NIC_ST 62	NIC_ST 63	FF	00-FF								
E6	NIC_ST 64	NIC_ST 65	NIC_ST 66	NIC_ST 67	NIC_ST 68	NIC_ST 69	NIC_ST 70	NIC_ST 71	FF	00-FF								
E7	NIC_ST 72	NIC_ST 73	NIC_ST 74	NIC_ST 75	NIC_ST 76	NIC_ST 77	NIC_ST 78	NIC_ST 79	FF	00-FF								
E8	NIC_ST 80	NIC_ST 81	NIC_ST 82	NIC_ST 83	NIC_ST 84	NIC_ST 85	NIC_ST 86	NIC_ST 87	FF	00-FF								
E9	NIC_ST 88	NIC_ST 89	NIC_ST 90	NIC_ST 91	NIC_ST 92	NIC_ST 93	NIC_ST 94	NIC_ST 95	FF	00-FF								
EA	NIC_ST 96	NIC_ST 97	NIC_ST 98	NIC_ST 99					FF	00-FF								
EB																		
EC																		
ED	NIC_MA 0	NIC_MA 1	NIC_MA 2	NIC_MA 3	NIC_MA 4	NIC_MA 5	NIC_MA 6	NIC_MA 7	FF	00-FF								
EE	NIC_MA 8	NIC_MA 9	NIC_MA 10	NIC_MA 11	NIC_MA 12	NIC_MA 13	NIC_MA 14	NIC_MA 15	FF	00-FF								
EF	NIC_MA 16	NIC_MA 17	NIC_MA 18	NIC_MA 19	NIC_MA 20	NIC_MA 21	NIC_MA 22	NIC_MA 23	FF	00-FF								
F0	NIC_MA 24	NIC_MA 25	NIC_MA 26	NIC_MA 27	NIC_MA 28	NIC_MA 29	NIC_MA 30	NIC_MA 31	FF	00-FF								
F1	NIC_MA 32	NIC_MA 33	NIC_MA 34	NIC_MA 35	NIC_MA 36	NIC_MA 37	NIC_MA 38	NIC_MA 39	FF	00-FF								
F2	NIC_MA 40	NIC_MA 41	NIC_MA 42	NIC_MA 43	NIC_MA 44	NIC_MA 45	NIC_MA 46	NIC_MA 47	FF	00-FF								
F3	NIC_MA 48	NIC_MA 49	NIC_MA 50	NIC_MA 51	NIC_MA 52	NIC_MA 53	NIC_MA 54	NIC_MA 55	FF	00-FF								
F4	NIC_MA 56	NIC_MA 57	NIC_MA 58	NIC_MA 59	NIC_MA 60	NIC_MA 61	NIC_MA 62	NIC_MA 63	FF	00-FF								
F5	NIC_MA 64	NIC_MA 65	NIC_MA 66	NIC_MA 67	NIC_MA 68	NIC_MA 69	NIC_MA 70	NIC_MA 71	FF	00-FF								
F6	NIC_MA 72	NIC_MA 73	NIC_MA 74	NIC_MA 75	NIC_MA 76	NIC_MA 77	NIC_MA 78	NIC_MA 79	FF	00-FF								
F7	NIC_MA 80	NIC_MA 81	NIC_MA 82	NIC_MA 83	NIC_MA 84	NIC_MA 85	NIC_MA 86	NIC_MA 87	FF	00-FF								
F8	NIC_MA 88	NIC_MA 89	NIC_MA 90	NIC_MA 91	NIC_MA 92	NIC_MA 93	NIC_MA 94	NIC_MA 95	FF	00-FF								
F9	NIC_MA 96	NIC_MA 97	NIC_MA 98	NIC_MA 99					FF	00-FF								
FA																		
FB																		
FC	NIC_3D 0	NIC_3D 1	NIC_3D 2	NIC_3D 3	NIC_3D 4	NIC_3D 5	NIC_3D 6	NIC_3D 7	00	00-FF								
FD	NIC_3D 8	NIC_3D 9	NIC_3D 10	NIC_3D 11	NIC_3D 12	NIC_3D 13	NIC_3D 14	NIC_3D 15	00	00-FF								
FE	NIC_3D 16	NIC_3D 17	NIC_3D 18	NIC_3D 19	NIC_3D 20	NIC_3D 21	NIC_3D 22	NIC_3D 23	00	00-FF								
FF	NIC_3D 24	NIC_3D 25	NIC_3D 26	NIC_3D 27	NIC_3D 28	NIC_3D 29	NIC_3D 30	NIC_3D 31	00	00-FF								
	MODEL									MODEL								
	LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
100	NIC_3D 32	NIC_3D 33	NIC_3D 34	NIC_3D 35	NIC_3D 36	NIC_3D 37	NIC_3D 38	NIC_3D 39	00	00-FF							
101	NIC_3D 40	NIC_3D 41	NIC_3D 42	NIC_3D 43	NIC_3D 44	NIC_3D 45	NIC_3D 46	NIC_3D 47	00	00-FF							
102	NIC_3D 48	NIC_3D 49	NIC_3D 50	NIC_3D 51	NIC_3D 52	NIC_3D 53	NIC_3D 54	NIC_3D 55	00	00-FF							
103	NIC_3D 56	NIC_3D 57	NIC_3D 58	NIC_3D 59	NIC_3D 60	NIC_3D 61	NIC_3D 62	NIC_3D 63	00	00-FF							
104	NIC_3D 64	NIC_3D 65	NIC_3D 66	NIC_3D 67	NIC_3D 68	NIC_3D 69	NIC_3D 70	NIC_3D 71	00	00-FF							
105	NIC_3D 72	NIC_3D 73	NIC_3D 74	NIC_3D 75	NIC_3D 76	NIC_3D 77	NIC_3D 78	NIC_3D 79	00	00-FF							
106	NIC_3D 80	NIC_3D 81	NIC_3D 82	NIC_3D 83	NIC_3D 84	NIC_3D 85	NIC_3D 86	NIC_3D 87	00	00-FF							
107	NIC_3D 88	NIC_3D 89	NIC_3D 90	NIC_3D 91	NIC_3D 92	NIC_3D 93	NIC_3D 94	NIC_3D 95	00	00-FF							
108	NIC_3D 96	NIC_3D 97	NIC_3D 98	NIC_3D 99					00	00-FF							
109																	
10A																	
10B	NIC_MO 0	NIC_MO 1	NIC_MO 2	NIC_MO 3	NIC_MO 4	NIC_MO 5	NIC_MO 6	NIC_MO 7	FF	00-FF							
10C	NIC_MO 8	NIC_MO 9	NIC_MO 10	NIC_MO 11	NIC_MO 12	NIC_MO 13	NIC_MO 14	NIC_MO 15	FF	00-FF							
10D	NIC_MO 16	NIC_MO 17	NIC_MO 18	NIC_MO 19	NIC_MO 20	NIC_MO 21	NIC_MO 22	NIC_MO 23	FF	00-FF							
10E	NIC_MO 24	NIC_MO 25	NIC_MO 26	NIC_MO 27	NIC_MO 28	NIC_MO 29	NIC_MO 30	NIC_MO 31	FF	00-FF							
10F	NIC_MO 32	NIC_MO 33	NIC_MO 34	NIC_MO 35	NIC_MO 36	NIC_MO 37	NIC_MO 38	NIC_MO 39	FF	00-FF							
110	NIC_MO 40	NIC_MO 41	NIC_MO 42	NIC_MO 43	NIC_MO 44	NIC_MO 45	NIC_MO 46	NIC_MO 47	FF	00-FF							
111	NIC_MO 48	NIC_MO 49	NIC_MO 50	NIC_MO 51	NIC_MO 52	NIC_MO 53	NIC_MO 54	NIC_MO 55	FF	00-FF							
112	NIC_MO 56	NIC_MO 57	NIC_MO 58	NIC_MO 59	NIC_MO 60	NIC_MO 61	NIC_MO 62	NIC_MO 63	FF	00-FF							
113	NIC_MO 64	NIC_MO 65	NIC_MO 66	NIC_MO 67	NIC_MO 68	NIC_MO 69	NIC_MO 70	NIC_MO 71	FF	00-FF							
114	NIC_MO 72	NIC_MO 73	NIC_MO 74	NIC_MO 75	NIC_MO 76	NIC_MO 77	NIC_MO 78	NIC_MO 79	FF	00-FF							
115	NIC_MO 80	NIC_MO 81	NIC_MO 82	NIC_MO 83	NIC_MO 84	NIC_MO 85	NIC_MO 86	NIC_MO 87	FF	00-FF							
116	NIC_MO 88	NIC_MO 89	NIC_MO 90	NIC_MO 91	NIC_MO 92	NIC_MO 93	NIC_MO 94	NIC_MO 95	FF	00-FF							
117	NIC_MO 96	NIC_MO 97	NIC_MO 98	NIC_MO 99					FF	00-FF							
118																	
119																	
11	ATUNING FREQUANCY (HIGHER PART)										S-SYS						POS 0
11	BTUNING FREQUANCY (LOWER PART)										000:BG						
11C	S-SYS		AFT		(auto)		C-SYS		10		001:I						
11	DTUNING FREQUANCY (HIGHER PART										O1O:DK						POS 1
11E	TUNING FREQUANCY (LOWER PART)										011:M						
11F	S-SYS		AFT		(auto)		C-SYS		10								
120	TUNING FREQUANCY (HIGHER PART)										AFT						POS 2
121	TUNING FREQUANCY (LOWER PART)										0:OFF						
122	S-SYS		AFT		(auto)		C-SYS		10		1:ON						
123	TUNING FREQUANCY (HIGHER PART)																PO 3
124	TUNING FREQUANCY (LOWER PART)																
125	S-SYS		AFT		(auto)		C-SYS		10								
126	TUNING FREQUANCY (HIGHER PART)																POS 4
127	TUNING FREQUANCY (LOWER PART)																
128	S-SYS		AFT		(auto)		C-SYS		10								
129	TUNING FREQUANCY (HIGHER PART)																POS 5
12A	TUNING FREQUANCY (LOWER PART)																
12B	S-SYS		AFT		(auto)		C-SYS		10								
12C	TUNING FREQUANCY (HIGHER PART)																POS 6
12D	TUNING FREQUANCY (LOWER PART)																
12E	S-SYS		AFT		(auto)		C-SYS		10								
12F	TUNING FREQUANCY (HIGHER PART)																POS 7
130	TUNING FREQUANCY (LOWER PART)																
131	S-SYS		AFT		(auto)		C-SYS		10								
132	TUNING FREQUANCY (HIGHER PART)																POS 8
133	TUNING FREQUANCY (LOWER PART)																
134	S-SYS		AFT		(auto)		C-SYS		10								
135	TUNING FREQUANCY (HIGHER PART)																POS 9
136	TUNING FREQUANCY (LOWER PART)																
137	S-SYS		AFT		(auto)		C-SYS		10								
138	TUNING FREQUANCY (HIGHER PART)																POS 10
139	TUNING FREQUANCY (LOWER PART)																
13A	S-SYS		AFT		(auto)		C-SYS		10								
13B	TUNING FREQUANCY (HIGHER PART)																POS 11
13C	TUNING FREQUANCY (LOWER PART)																
13D	S-SYS		AFT		(auto)		C-SYS		10								
13E	TUNING FREQUANCY (HIGHER PART)																POS 12
13F	TUNING FREQUANCY (LOWER PART)																
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
140	S-SYS			AFT		(auto)	C-SYS		10								
141	TUNING FREQUANCY (HIGHER PART)																POS 13
142	TUNING FREQUANCY (LOWER PART)																
143	S-SYS			AFT		(auto)	C-SYS		10								
144	TUNING FREQUANCY (HIGHER PART)																POS 14
145	TUNING FREQUANCY (LOWER PART)																
146	S-SYS			AFT		(auto)	C-SYS		10								
147	TUNING FREQUANCY (HIGHER PART)																POS 15
148	TUNING FREQUANCY (LOWER PART)																
149	S-SYS			AFT		(auto)	C-SYS		10								
14A	TUNING FREQUANCY (HIGHER PART)																POS 16
14B	TUNING FREQUANCY (LOWER PART)																
14C	S-SYS			AFT		(auto)	C-SYS		10								
14D	TUNING FREQUANCY (HIGHER PART)																POS 17
14E	TUNING FREQUANCY (LOWER PART)																
14F	S-SYS			AFT		(auto)	C-SYS		10								
150	TUNING FREQUANCY (HIGHER PART)																POS 18
151	TUNING FREQUANCY (LOWER PART)																
152	S-SYS			AFT		(auto)	C-SYS		10								
153	TUNING FREQUANCY (HIGHER PART)																POS 19
154	TUNING FREQUANCY (LOWER PART)																
155	S-SYS			AFT		(auto)	C-SYS		10								
156	TUNING FREQUANCY (HIGHER PART)																POS 20
157	TUNING FREQUANCY (LOWER PART)																
158	S-SYS			AFT		(auto)	C-SYS		10								
159	TUNING FREQUANCY (HIGHER PART)																POS 21
15A	TUNING FREQUANCY (LOWER PART)																
15B	S-SYS			AFT		(auto)	C-SYS		10								
15C	TUNING FREQUANCY (HIGHER PART)																POS 22
15D	TUNING FREQUANCY (LOWER PART)																
15E	S-SYS			AFT		(auto)	C-SYS		10								
15F	TUNING FREQUANCY (HIGHER PART)																POS 23
160	TUNING FREQUANCY (LOWER PART)																
161	S-SYS			AFT		(auto)	C-SYS		10								
162	TUNING FREQUANCY (HIGHER PART)																POS 24
163	TUNING FREQUANCY (LOWER PART)																
164	S-SYS			AFT		(auto)	C-SYS		10								
165	TUNING FREQUANCY (HIGHER PART)																POS 25
166	TUNING FREQUANCY (LOWER PART)																
167	S-SYS			AFT		(auto)	C-SYS		10								
168	TUNING FREQUANCY (HIGHER PART)																POS 26
169	TUNING FREQUANCY (LOWER PART)																
16A	S-SYS			AFT		(auto)	C-SYS		10								
16B	TUNING FREQUANCY (HIGHER PART)																POS 27
16C	TUNING FREQUANCY (LOWER PART)																
16D	S-SYS			AFT		(auto)	C-SYS		10								
16E	TUNING FREQUANCY (HIGHER PART)																POS 28
16F	TUNING FREQUANCY (LOWER PART)																
170	S-SYS			AFT		(auto)	C-SYS		10								
171	TUNING FREQUANCY (HIGHER PART)																POS 29
172	TUNING FREQUANCY (LOWER PART)																
173	S-SYS			AFT		(auto)	C-SYS		10								
174	TUNING FREQUANCY (HIGHER PART)																POS 30
175	TUNING FREQUANCY (LOWER PART)																
176	S-SYS			AFT		(auto)	C-SYS		10								
177	TUNING FREQUANCY (HIGHER PART)																POS 31
178	TUNING FREQUANCY (LOWER PART)																
179	S-SYS			AFT		(auto)	C-SYS		10								
17A	TUNING FREQUANCY (HIGHER PART)																POS 32
17B	TUNING FREQUANCY (LOWER PART)																
17C	S-SYS			AFT		(auto)	C-SYS		10								
17D	TUNING FREQUANCY (HIGHER PART)																POS 33
17E	TUNING FREQUANCY (LOWER PART)																
17F	S-SYS			AFT		(auto)	C-SYS		10								
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
180	TUNING FREQUANCY (HIGHER PART)																POS 34
181	TUNING FREQUANCY (LOWER PART)																
182	S-SYS			AFT		(auto)	C-SYS		10								
183	TUNING FREQUANCY (HIGHER PART)																POS 35
184	TUNING FREQUANCY (LOWER PART)																
185	S-SYS			AFT		(auto)	C-SYS		10								
186	TUNING FREQUANCY (HIGHER PART)																POS 36
187	TUNING FREQUANCY (LOWER PART)																
188	S-SYS			AFT		(auto)	C-SYS		10								
189	TUNING FREQUANCY (HIGHER PART)																POS 37
18A	TUNING FREQUANCY (LOWER PART)																
18B	S-SYS			AFT		(auto)	C-SYS		10								
18C	TUNING FREQUANCY (HIGHER PART)																POS 38
18D	TUNING FREQUANCY (LOWER PART)																
18E	S-SYS			AFT		(auto)	C-SYS		10								
18F	TUNING FREQUANCY (HIGHER PART)																POS 39
190	TUNING FREQUANCY (LOWER PART)																
191	S-SYS			AFT		(auto)	C-SYS		10								
192	TUNING FREQUANCY (HIGHER PART)																POS 40
193	TUNING FREQUANCY (LOWER PART)																
194	S-SYS			AFT		(auto)	C-SYS		10								
195	TUNING FREQUANCY (HIGHER PART)																POS 41
196	TUNING FREQUANCY (LOWER PART)																
197	S-SYS			AFT		(auto)	C-SYS		10								
198	TUNING FREQUANCY (HIGHER PART)																POS 42
199	TUNING FREQUANCY (LOWER PART)																
19A	S-SYS			AFT		(auto)	C-SYS		10								
19B	TUNING FREQUANCY (HIGHER PART)																POS 43
19C	TUNING FREQUANCY (LOWER PART)																
19D	S-SYS			AFT		(auto)	C-SYS		10								
19E	TUNING FREQUANCY (HIGHER PART)																POS 44
19F	TUNING FREQUANCY (LOWER PART)																
1A0	S-SYS			AFT		(auto)	C-SYS		10								
1A1	TUNING FREQUANCY (HIGHER PART)																POS 45
1A2	TUNING FREQUANCY (LOWER PART)																
1A3	S-SYS			AFT		(auto)	C-SYS		10								
1A4	TUNING FREQUANCY (HIGHER PART)																POS 46
1A5	TUNING FREQUANCY (LOWER PART)																
1A6	S-SYS			AFT		(auto)	C-SYS		10								
1A7	TUNING FREQUANCY (HIGHER PART)																POS 47
1A8	TUNING FREQUANCY (LOWER PART)																
1A9	S-SYS			AFT		(auto)	C-SYS		10								
1AA	TUNING FREQUANCY (HIGHER PART)																POS 48
1AB	TUNING FREQUANCY (LOWER PART)																
1AC	S-SYS			AFT		(auto)	C-SYS		10								
1AD	TUNING FREQUANCY (HIGHER PART)																POS 49
1AE	TUNING FREQUANCY (LOWER PART)																
1AF	S-SYS			AFT		(auto)	C-SYS		10								
1B0	TUNING FREQUANCY (HIGHER PART)																POS 50
1B1	TUNING FREQUANCY (LOWER PART)																
1B2	S-SYS			AFT		(auto)	C-SYS		10								
1B3	TUNING FREQUANCY (HIGHER PART)																POS 51
1B4	TUNING FREQUANCY (LOWER PART)																
1B5	S-SYS			AFT		(auto)	C-SYS		10								
1B6	TUNING FREQUANCY (HIGHER PART)																POS 52
1B7	TUNING FREQUANCY (LOWER PART)																
1B8	S-SYS			AFT		(auto)	C-SYS		10								
1B9	TUNING FREQUANCY (HIGHER PART)																POS 53
1BA	TUNING FREQUANCY (LOWER PART)																
1BB	S-SYS			AFT		(auto)	C-SYS		10								
1BC	TUNING FREQUANCY (HIGHER PART)																POS 54
1BD	TUNING FREQUANCY (LOWER PART)																
1BE	S-SYS			AFT		(auto)	C-SYS		10								
1BF	TUNING FREQUANCY (HIGHER PART)																POS 55
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
1C0	TUNING FREQUANCY (LOWER PART)																POS 55
1C1	S-SYS			AFT		(auto)	C-SYS		10								
1C2	TUNING FREQUANCY (HIGHER PART)																POS 56
1C3	TUNING FREQUANCY (LOWER PART)																
1C4	S-SYS			AFT		(auto)	C-SYS		10								
1C5	TUNING FREQUANCY (HIGHER PART)																POS 57
1C6	TUNING FREQUANCY (LOWER PART)																
1C7	S-SYS			AFT		(auto)	C-SYS		10								
1C8	TUNING FREQUANCY (HIGHER PART)																POS 58
1C9	TUNING FREQUANCY (LOWER PART)																
1CA	S-SYS			AFT		(auto)	C-SYS		10								
1CB	TUNING FREQUANCY (HIGHER PART)																POS 59
1CC	TUNING FREQUANCY (LOWER PART)																
1CD	S-SYS			AFT		(auto)	C-SYS		10								
1CE	TUNING FREQUANCY (HIGHER PART)																POS 60
1CF	TUNING FREQUANCY (LOWER PART)																
1D0	S-SYS			AFT		(auto)	C-SYS		10								
1D1	TUNING FREQUANCY (HIGHER PART)																POS 61
1D2	TUNING FREQUANCY (LOWER PART)																
1D3	S-SYS			AFT		(auto)	C-SYS		10								
1D4	TUNING FREQUANCY (HIGHER PART)																POS 62
1D5	TUNING FREQUANCY (LOWER PART)																
1D6	S-SYS			AFT		(auto)	C-SYS		10								
1D7	TUNING FREQUANCY (HIGHER PART)																POS 63
1D8	TUNING FREQUANCY (LOWER PART)																
1D9	S-SYS			AFT		(auto)	C-SYS		10								
1DA	TUNING FREQUANCY (HIGHER PART)																POS 64
1DB	TUNING FREQUANCY (LOWER PART)																
1DC	S-SYS			AFT		(auto)	C-SYS		10								
1DD	TUNING FREQUANCY (HIGHER PART)																POS 65
1DE	TUNING FREQUANCY (LOWER PART)																
1DF	S-SYS			AFT		(auto)	C-SYS		10								
1E0	TUNING FREQUANCY (HIGHER PART)																POS 66
1E1	TUNING FREQUANCY (LOWER PART)																
1E2	S-SYS			AFT		(auto)	C-SYS		10								
1E3	TUNING FREQUANCY (HIGHER PART)																POS 67
1E4	TUNING FREQUANCY (LOWER PART)																
1E5	S-SYS			AFT		(auto)	C-SYS		10								
1E6	TUNING FREQUANCY (HIGHER PART)																POS 68
1E7	TUNING FREQUANCY (LOWER PART)																
1E8	S-SYS			AFT		(auto)	C-SYS		10								
1E9	TUNING FREQUANCY (HIGHER PART)																POS 69
1EA	TUNING FREQUANCY (LOWER PART)																
1EB	S-SYS			AFT		(auto)	C-SYS		10								
1EC	TUNING FREQUANCY (HIGHER PART)																POS 70
1ED	TUNING FREQUANCY (LOWER PART)																
1EE	S-SYS			AFT		(auto)	C-SYS		10								
1EF	TUNING FREQUANCY (HIGHER PART)																POS 71
1F0	TUNING FREQUANCY (LOWER PART)																
1F1	S-SYS			AFT		(auto)	C-SYS		10								
1F2	TUNING FREQUANCY (HIGHER PART)																POS 72
1F3	TUNING FREQUANCY (LOWER PART)																
1F4	S-SYS			AFT		(auto)	C-SYS		10								
1F5	TUNING FREQUANCY (HIGHER PART)																POS 73
1F6	TUNING FREQUANCY (LOWER PART)																
1F7	S-SYS			AFT		(auto)	C-SYS		10								
1F8	TUNING FREQUANCY (HIGHER PART)																POS 74
1F9	TUNING FREQUANCY (LOWER PART)																
1FA	S-SYS			AFT		(auto)	C-SYS		10								
1FB	TUNING FREQUANCY (HIGHER PART)																POS 75
1FC	TUNING FREQUANCY (LOWER PART)																
1FD	S-SYS			AFT		(auto)	C-SYS		10								
1FE	TUNING FREQUANCY (HIGHER PART)																POS 76
1FF	TUNING FREQUANCY (LOWER PART)																
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
200		S-SYS		AFT		(auto)	C-SYS		10								
201	TUNING FREQUANCY (HIGHER PART)																POS 77
202	TUNING FREQUANCY (LOWER PART)																
203		S-SYS		AFT		(auto)	C-SYS		10								
204	TUNING FREQUANCY (HIGHER PART)																POS 78
205	TUNING FREQUANCY (LOWER PART)																
206		S-SYS		AFT		(auto)	C-SYS		10								
207	TUNING FREQUANCY (HIGHER PART)																POS 79
208	TUNING FREQUANCY (LOWER PART)																
209		S-SYS		AFT		(auto)	C-SYS		10								
20A	TUNING FREQUANCY (HIGHER PART)																POS 80
20B	TUNING FREQUANCY (LOWER PART)																
20C		S-SYS		AFT		(auto)	C-SYS		10								
20D	TUNING FREQUANCY (HIGHER PART)																POS 81
20E	TUNING FREQUANCY (LOWER PART)																
20F		S-SYS		AFT		(auto)	C-SYS		10								
210	TUNING FREQUANCY (HIGHER PART)																POS 82
211	TUNING FREQUANCY (LOWER PART)																
212		S-SYS		AFT		(auto)	C-SYS		10								
213	TUNING FREQUANCY (HIGHER PART)																POS 83
214	TUNING FREQUANCY (LOWER PART)																
215		S-SYS		AFT		(auto)	C-SYS		10								
216	TUNING FREQUANCY (HIGHER PART)																POS 84
217	TUNING FREQUANCY (LOWER PART)																
218		S-SYS		AFT		(auto)	C-SYS		10								
219	TUNING FREQUANCY (HIGHER PART)																POS 85
21A	TUNING FREQUANCY (LOWER PART)																
21B		S-SYS		AFT		(auto)	C-SYS		10								
21C	TUNING FREQUANCY (HIGHER PART)																POS 86
21D	TUNING FREQUANCY (LOWER PART)																
21E		S-SYS		AFT		(auto)	C-SYS		10								
21F	TUNING FREQUANCY (HIGHER PART)																POS 87
220	TUNING FREQUANCY (LOWER PART)																
221		S-SYS		AFT		(auto)	C-SYS		10								
222	TUNING FREQUANCY (HIGHER PART)																POS 88
223	TUNING FREQUANCY (LOWER PART)																
224		S-SYS		AFT		(auto)	C-SYS		10								
225	TUNING FREQUANCY (HIGHER PART)																POS 89
226	TUNING FREQUANCY (LOWER PART)																
227		S-SYS		AFT		(auto)	C-SYS		10								
228	TUNING FREQUANCY (HIGHER PART)																POS 90
229	TUNING FREQUANCY (LOWER PART)																
22A		S-SYS		AFT		(auto)	C-SYS		10								
22B	TUNING FREQUANCY (HIGHER PART)																POS 91
22C	TUNING FREQUANCY (LOWER PART)																
22D		S-SYS		AFT		(auto)	C-SYS		10								
22E	TUNING FREQUANCY (HIGHER PART)																POS 92
22F	TUNING FREQUANCY (LOWER PART)																
230		S-SYS		AFT	(auto)		C-SYS		10								
231	TUNING FREQUANCY (HIGHER PART)																POS 93
232	TUNING FREQUANCY (LOWER PART)																
233		S-SYS		AFT		(auto)	C-SYS		10								
234	TUNING FREQUANCY (HIGHER PART)																POS 94
235	TUNING FREQUANCY (LOWER PART)																
236		S-SYS		AFT		(auto)	C-SYS		10								
237	TUNING FREQUANCY (HIGHER PART)																POS 95
238	TUNING FREQUANCY (LOWER PART)																
239		S-SYS		AFT		(auto)	C-SYS		10								
23A	TUNING FREQUANCY (HIGHER PART)																POS 96
23B	TUNING FREQUANCY (LOWER PART)																
23C		S-SYS		AFT		(auto)	C-SYS		10								
23D	TUNING FREQUANCY (HIGHER PART)																POS 97
23E	TUNING FREQUANCY (LOWER PART)																
23F		S-SYS		AFT		(auto)	C-SYS		10								
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
240	TUNING FREQUANCY (HIGHER PART)																POS 98
241	TUNING FREQUANCY (LOWER PART)																
242		S-SYS		AFT		(auto)	C-SYS		10								
243	TUNING FREQUANCY (HIGHER PART)																POS 99
244	TUNING FREQUANCY (LOWER PART)																
245		S-SYS		AFT		(auto)	C-SYS		10								
246																	AV1
247																	
248						(auto)	C-SYS		10								
249																	AV2
24A																	
24B						(auto)	C-SYS		10								
24C																	GAME
24D																	
24E						(auto)	C-SYS		10								
24F																	
250																	
251																	
252																	
253																	
254																	
255																	
256																	
257																	
258																	
259																	
25A																	
25B																	
25C																	
25D																	
25E																	
25F																	
260																	
261																	
262																	
263																	
264																	
265																	
266																	
267																	
268																	
269																	
26A																	
26B																	
26C																	
26D																	
26E																	
26F																	
270																	
271																	
272																	
273																	
274																	
275																	
276																	
277																	
278																	
279																	
27A																	
27B																	
27C																	
27D																	
27E																	
27F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
280																	
281																	
282																	
283																	
284																	
285																	
286																	
287																	
288																	
289																	
28A																	
28B																	
28C																	
28D																	
28E																	
28F																	
290																	
291																	
292																	
293																	
294																	
295																	
296																	
297																	
298																	
299																	
29A																	
29B																	
29C																	
29D																	
29E																	
29F																	
2A0																	
2A1																	
2A2																	
2A3																	
2A4																	
2A5																	
2A6																	
2A7																	
2A8																	
2A9																	
2AA																	
2AB																	
2AC																	
2AD																	
2AE																	
2AF																	
2B0																	
2B1																	
2B2																	
2B3																	
2B4																	
2B5																	
2B6																	
2B7																	
2B8																	
2B9																	
2BA																	
2BB																	
2BC																	
2BD																	
2BE																	
2BF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
2C0																	
2C1																	
2C2																	
2C3																	
2C4																	
2C5																	
2C6																	
2C7																	
2C8																	
2C9																	
2CA																	
2CB																	
2CC																	
2CD																	
2CE																	
2CF																	
2D0																	
2D1																	
2D2																	
2D3																	
2D4																	
2D5																	
2D6																	
2D7																	
2D8																	
2D9																	
2DA																	
2DB																	
2DC																	
2DD																	
2DE																	
2DF																	
2E0																	
2E1																	
2E2																	
2E3																	
2E4																	
2E5																	
2E6																	
2E7																	
2E8																	
2E9																	
2EA																	
2EB																	
2EC																	
2ED																	
2EE																	
2EF																	
2F0																	
2F1																	
2F2																	
2F3																	
2F4																	
2F5																	
2F6																	
2F7																	
2F8																	
2F9																	
2FA																	
2FB																	
2FC																	
2FD																	
2FE																	
2FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

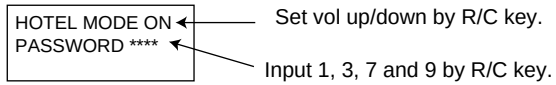
UA1 HOTEL MODE APPLICATION NOTE

The purpose of this HOTEL MODE is to enable hotel authorized person to store the tuned programs as hotel channels, current volume as hotel volume (maximum volume), picture and sound setting. In addition, The user will not be able to select Preset and Channel-setting functions.

How to enable/disable the "Hotel Mode" ?

Ans: a) Select the "Blueback" function (under "Menu-Feature" selection) by R/C, press the "-/--" (one/two digit) key and keep pressing it for five second, then you can see the hotel mode with four digits password.

b) Key in the four digits password starting with number "1", "3", "7" and "9", then the hotel mode will be in enable condition, you can switch on/off the hotel mode by using R/C (volume up/down) key.



#1 Ch 1 is your selected channel for hotel mode.

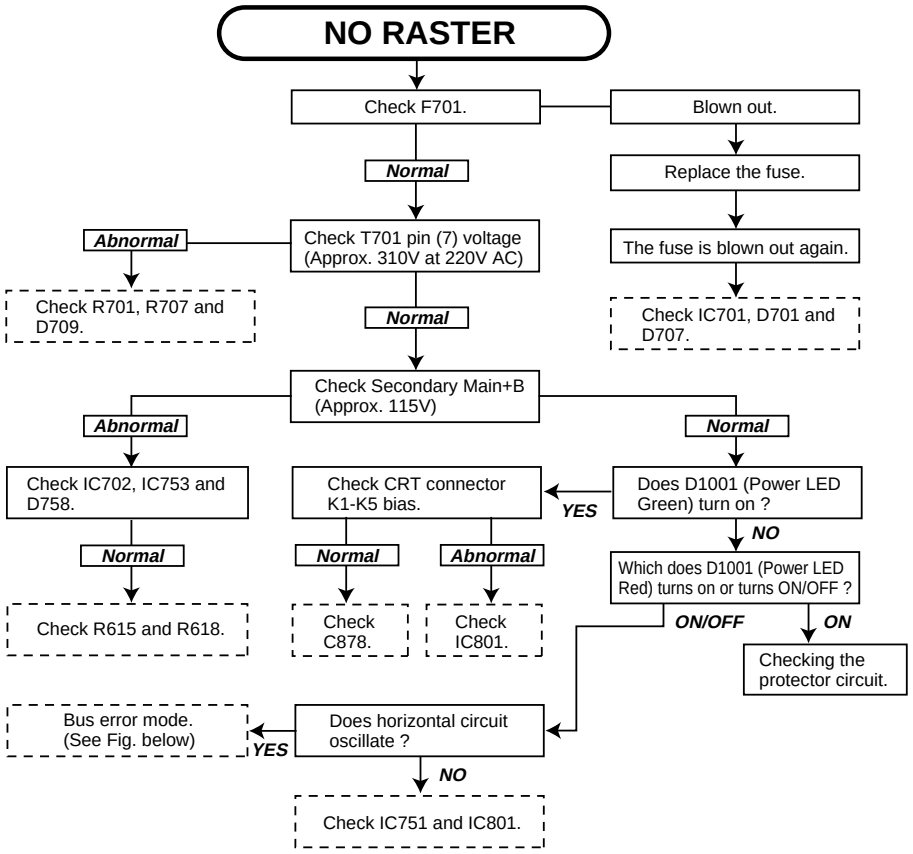
* We recommend
Before set the hotel mode, it is better to choose ch 1 & set s-vol level Up to 75% full scale. After set hotel mode, starting channel will be always ch 1 & maximum sound level out will be set to 75% of full scale.

* If you set hotel mode in AV, starting channel will be the last ch which you received before power off (same as normal operation)

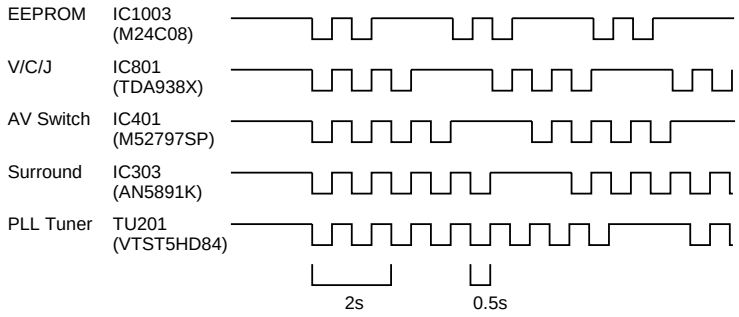
CONDITION:

When using hotel mode, the user can only control "Picture", "Sound" and "Feature" selection.
But it will return to the previous hotel mode setting condition after power off.
The user can't use:-- "Ch-setting" (OSD become violet) and "Preset".
The others function is allowed to be used.

TROUBLE SHOOTING TABLE

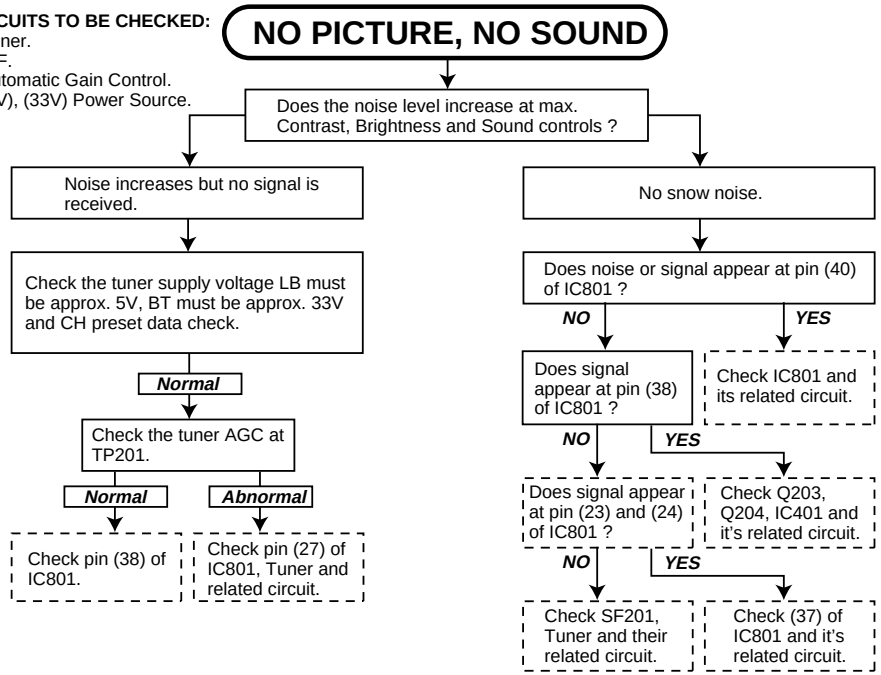


If a bus error happens, the LED RED indicator starts flashing and the power is turned off.
The power key is still effective.

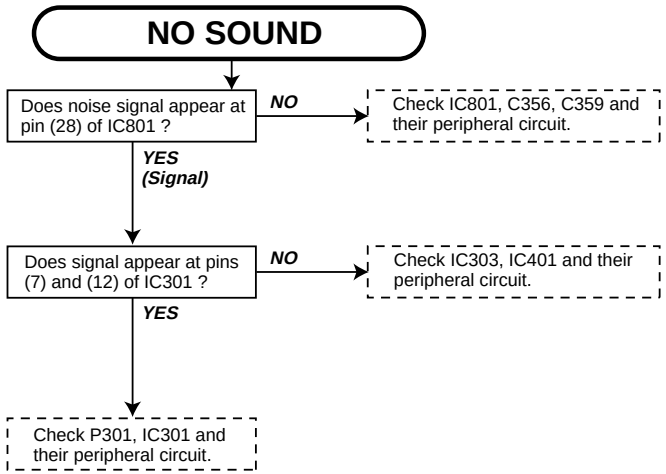


TROUBLE SHOOTING TABLE (Continued)

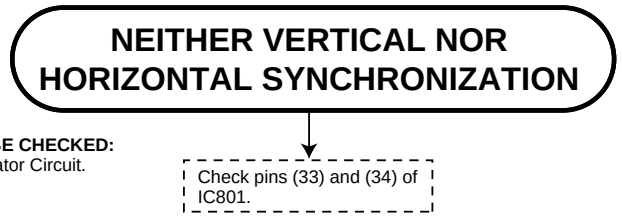
CIRCUITS TO BE CHECKED:
- Tuner.
- PIF.
- Automatic Gain Control.
- (5V), (33V) Power Source.


NO PICTURE, NO SOUND
Does the noise level increase at max. Contrast, Brightness and Sound controls ?
Noise increases but no signal is received.
Check the tuner supply voltage LB must be approx. 5V, BT must be approx. 33V and CH preset data check.
Normal
Check the tuner AGC at TP201.
Normal
Abnormal
Check pin (38) of IC801.
Check pin (27) of IC801, Tuner and related circuit.
No snow noise.
Does noise or signal appear at pin (40) of IC801 ?
NO
YES
Does signal appear at pin (38) of IC801 ?
Check IC801 and its related circuit.
NO
YES
Does signal appear at pin (23) and (24) of IC801 ?
Check Q203, Q204, IC401 and it's related circuit.
NO
YES
Check SF201, Tuner and their related circuit.
Check (37) of IC801 and it's related circuit.

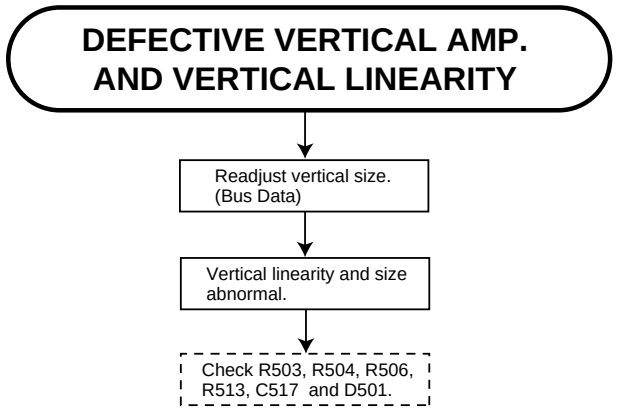
CIRCUITS TO BE CHECKED:
- Sound system pins (28) and (29) of IC801.
- Sound Detector Circuit.
- Sound Switch and Att. Control.
- Audio Output Circuit.

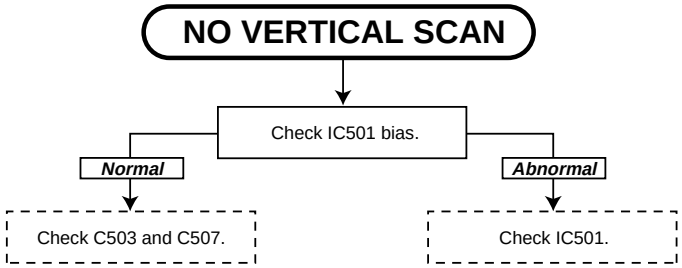

NO SOUND
Does noise signal appear at pin (28) of IC801 ?
NO
Check IC801, C356, C359 and their peripheral circuit.
YES (Signal)
Does signal appear at pins (7) and (12) of IC301 ?
NO
Check IC303, IC401 and their peripheral circuit.
YES
Check P301, IC301 and their peripheral circuit.

TROUBLE SHOOTING TABLE (Continued)

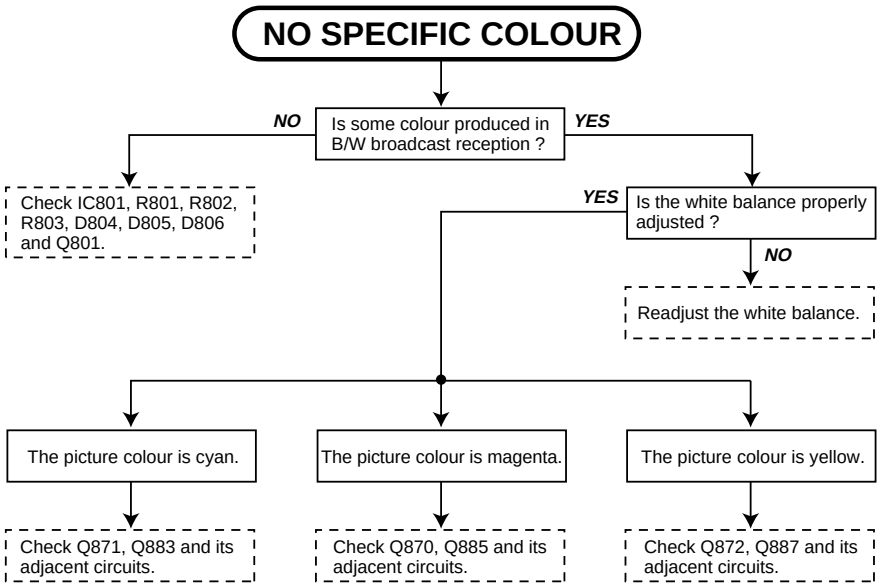


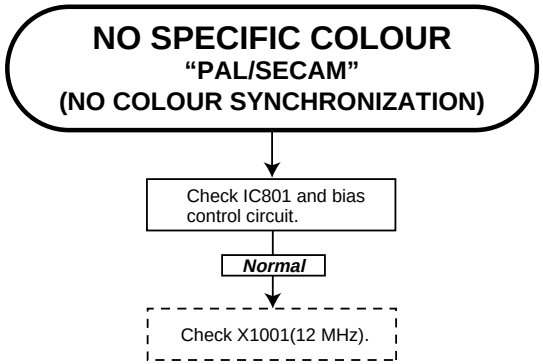
CIRCUIT TO BE CHECKED:
- Sync. Separator Circuit.


DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY
Readjust vertical size. (Bus Data)
Vertical linearity and size abnormal.
Check R503, R504, R506, R513, C517 and D501.

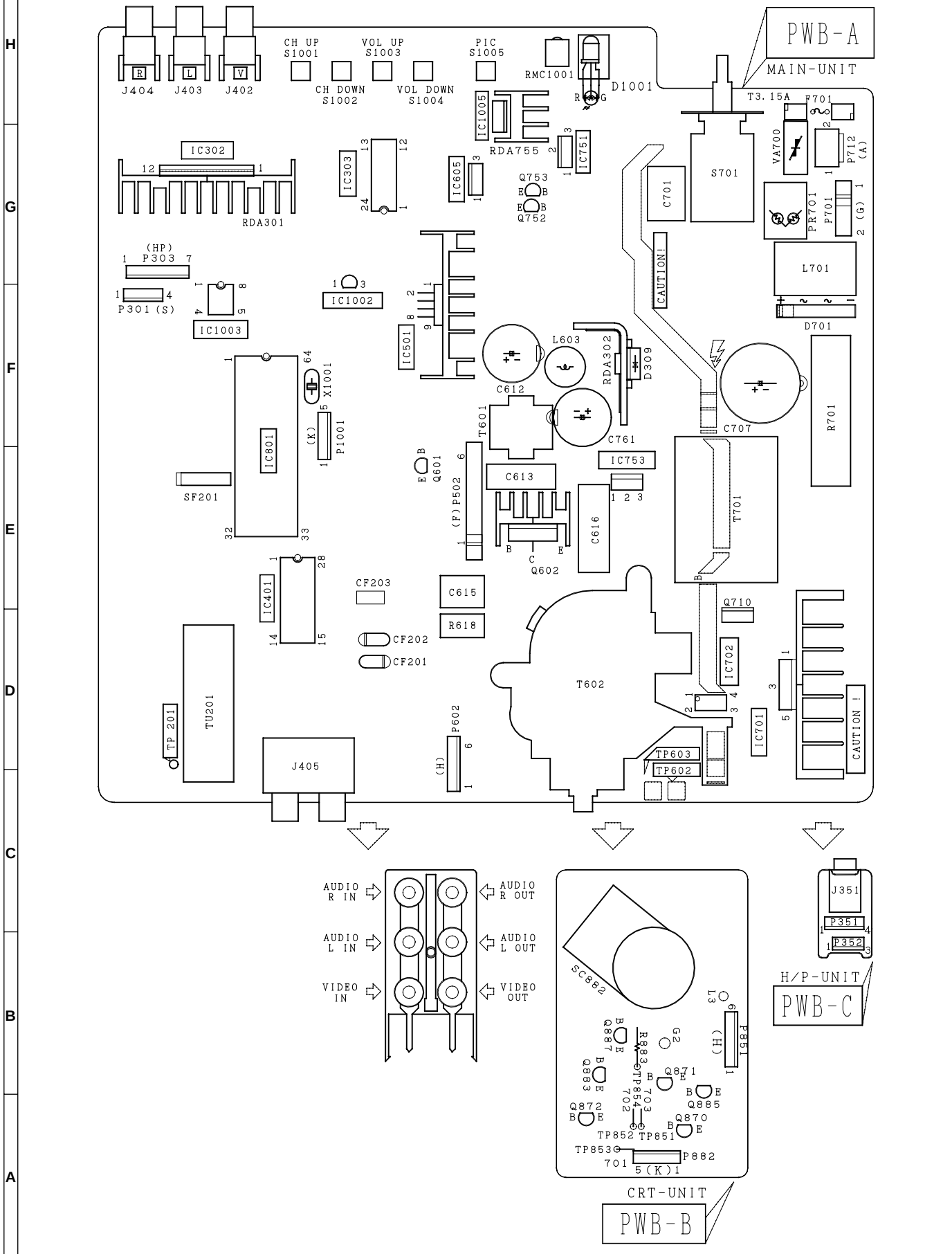


TROUBLE SHOOTING TABLE (Continued)


NO SPECIFIC COLOUR
Is some colour produced in B/W broadcast reception ?
NO
YES
Check IC801, R801, R802, R803, D804, D805, D806 and Q801.
Is the white balance properly adjusted ?
YES
NO
Readjust the white balance.
The picture colour is cyan.
The picture colour is magenta.
The picture colour is yellow.
Check Q871, Q883 and its adjacent circuits.
Check Q870, Q885 and its adjacent circuits.
Check Q872, Q887 and its adjacent circuits.



CHASSIS LAYOUT



BLOCK DIAGRAM

MAIN UNIT

TO HEDPHONE HP
GND 1
R 2
R-IN 3
R-OUT 4
L 5
L-IN 6
L-OUT 7

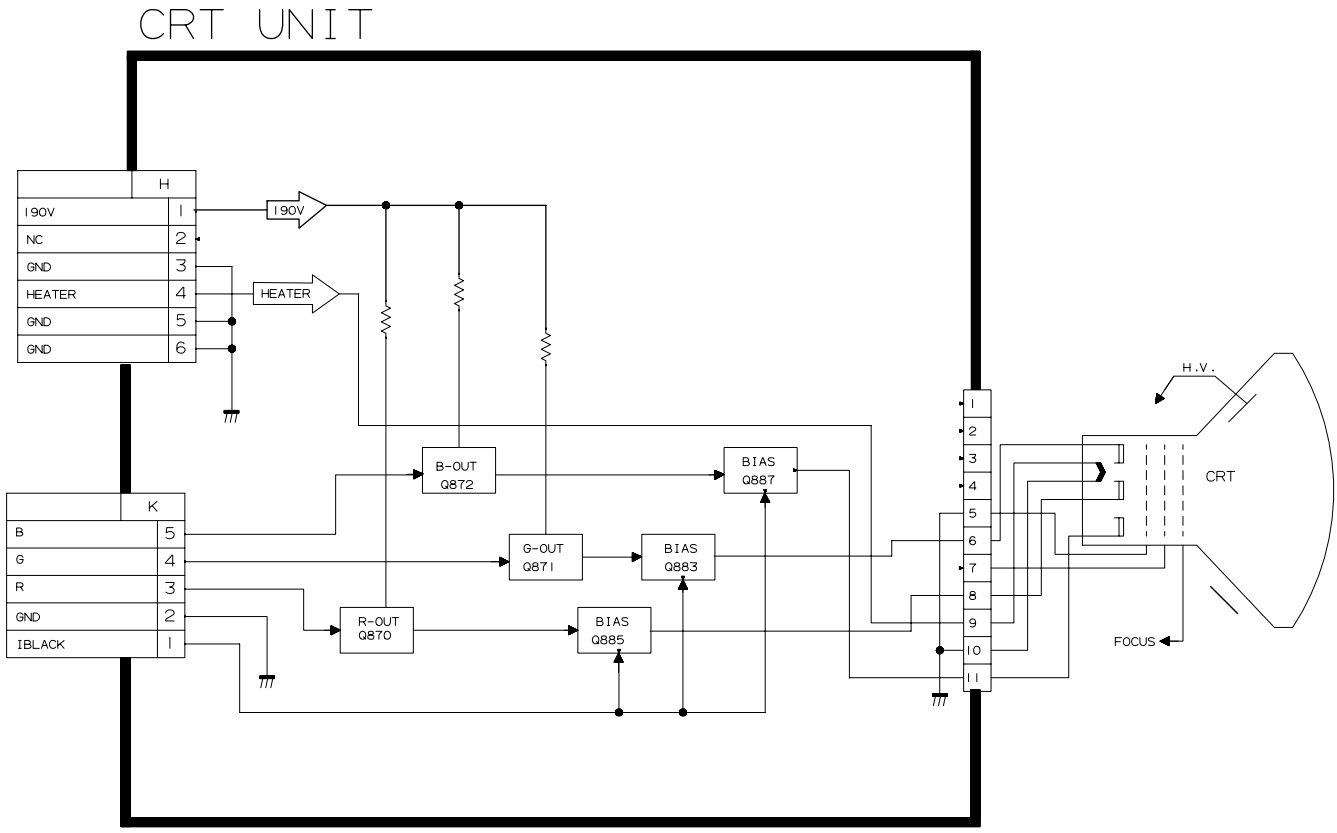
SP301
SP302
RMC1001
TO CRT UNIT K
IBLACK 1
NC 2
R 3
G 4
B 5

IC1003 8K EEPROM
PRESET SW Q1003
IC1002 RESET
SPOT KILLER Q801
Q802 BUFFER
X1001 12MHz
IC801 UOC
IC302 S-OUT
IC303 S-PROCESSOR
IC501 V-OUT
IC751 3.3V REG
IC1005 5V REG
IC605 8V REG
IC753 ERROR AMP
IC702 PHOTO COUPLER
S701 POWER SWITCH
F701 FUSE
AC CORD
L702 LINE FILTER
ADG COIL
D701 BRIDGE DIODE
T701 SWITCHING TRANSFORMER
IC701 SWITCHING REGULATOR
CAPRISTOR RT19 RT26 C721
T602 FBT
Q603 PROTECTOR
SWITCH Q752&Q753
STD BY SWITCH Q723
SOUND CARRIER FILTER 5.5/6.0/6.5MHZ
PRE-AMP Q203
SOUND CARRIER FILTER 4.5MHZ
D-DRIVE Q601&T601
H-OUT Q602
Q303 SW
Q304 BUFFER
Q204 PRE AMP
Q305 SW
Q306 SW
Q202 SW
SF201 SAW FILTER
IC401 AV-SW
Q201 IF PRE-AMP
D201 33V REG
TU201 TUNER
TP201
TP603
TP602
REAR AV-JACK
AV-2 IN

FOR ADJ BC
GND 5
SCL 4
SDA 3
EX BUS 2
BUS ACK 1

F TO DY
6
5
4
3
2
1

H TO CRT UNIT
1 +190V
2 NC
3 GND
4 HEATER
5 GND
6 GND


CRT UNIT
H
190V 1
NC 2
GND 3
HEATER 4
GND 5
GND 6
190V
HEATER
K
B 5
G 4
R 3
GND 2
IBLACK 1
B-OUT Q872
G-OUT Q871
R-OUT Q870
BIAS Q887
BIAS Q883
BIAS Q885
H.V.
CRT
FOCUS
1
2
3
4
5
6
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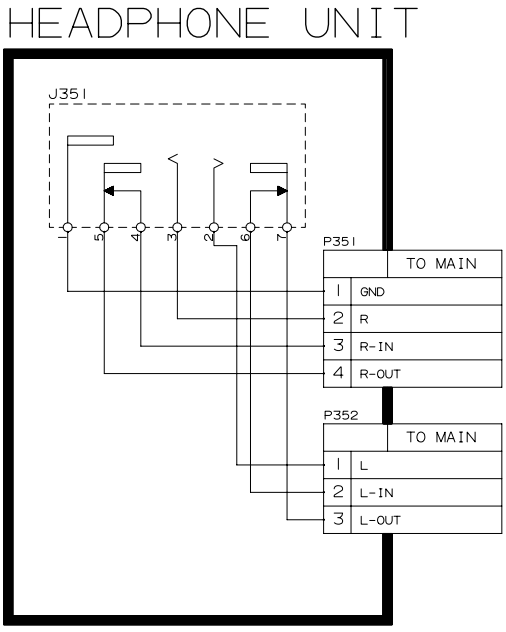
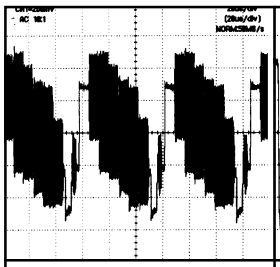
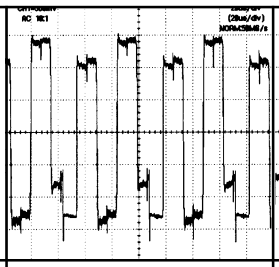

HEADPHONE UNIT
J351
P351
TO MAIN
1 GND
2 R
3 R-IN
4 R-OUT
P352
TO MAIN
1 L
2 L-IN
3 L-OUT

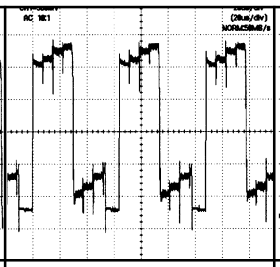
WAVEFORMS



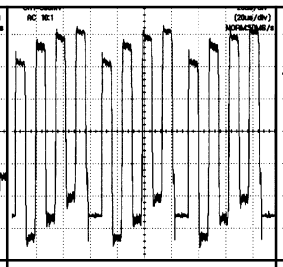
① 1.0Vp-p



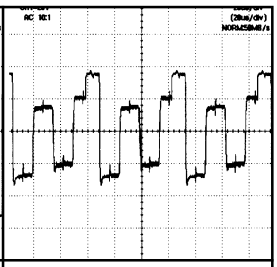
② 2.5 Vp-p (H)



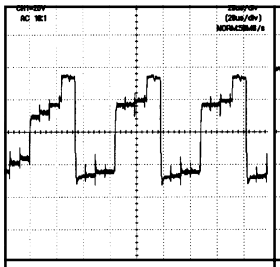
③ 2.55 Vp-p (H)



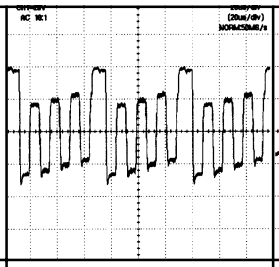
④ 3.35Vp-p (H)



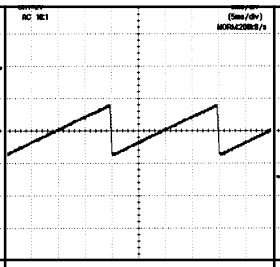
⑤ 68.0 Vp-p (H)



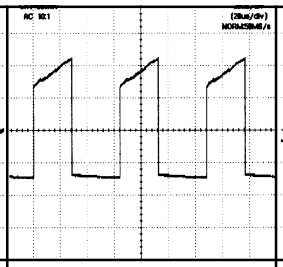
⑥ 66.0 Vp-p (H)



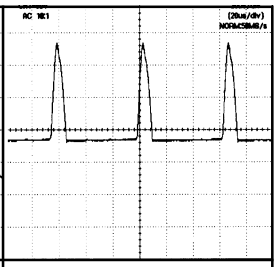
⑦ 72.0 Vp-p (H)



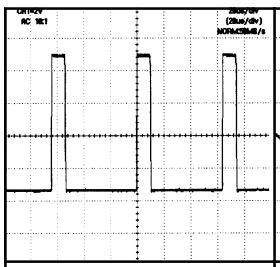
⑧ 3.0 Vp-p (H)



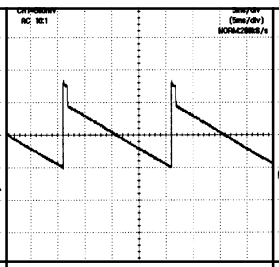
⑨ 1.85 Vp-p (H)



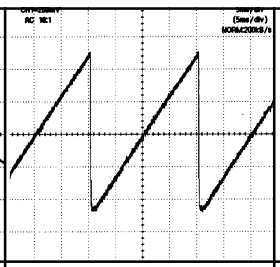
⑩ 150.0 Vp-p (H)



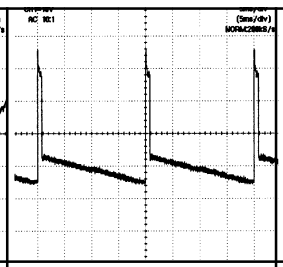
⑪ 8.4 Vp-p (H)



⑫ 1.3 Vp-p (H)

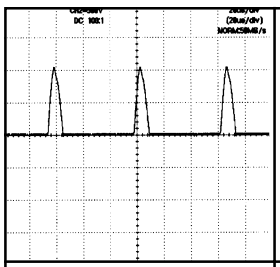


⑬ 0.98 Vp-p (H)

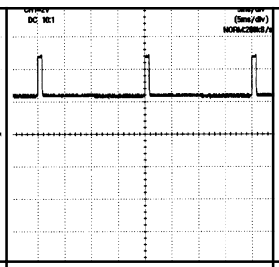


⑭ 43.0 Vp-p (H)

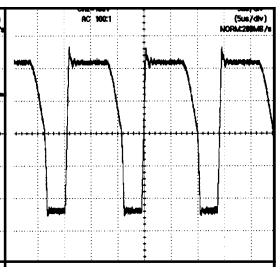
⑮ 130.0 Vp-p (H)



⑯ 980 Vp-p (H)



⑰ 2.4 Vp-p (H)



⑱ 510 Vp-p (H)

DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTES:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE ( ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Meg ohm).*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μF, unless therwise noted. (P = μμF).*

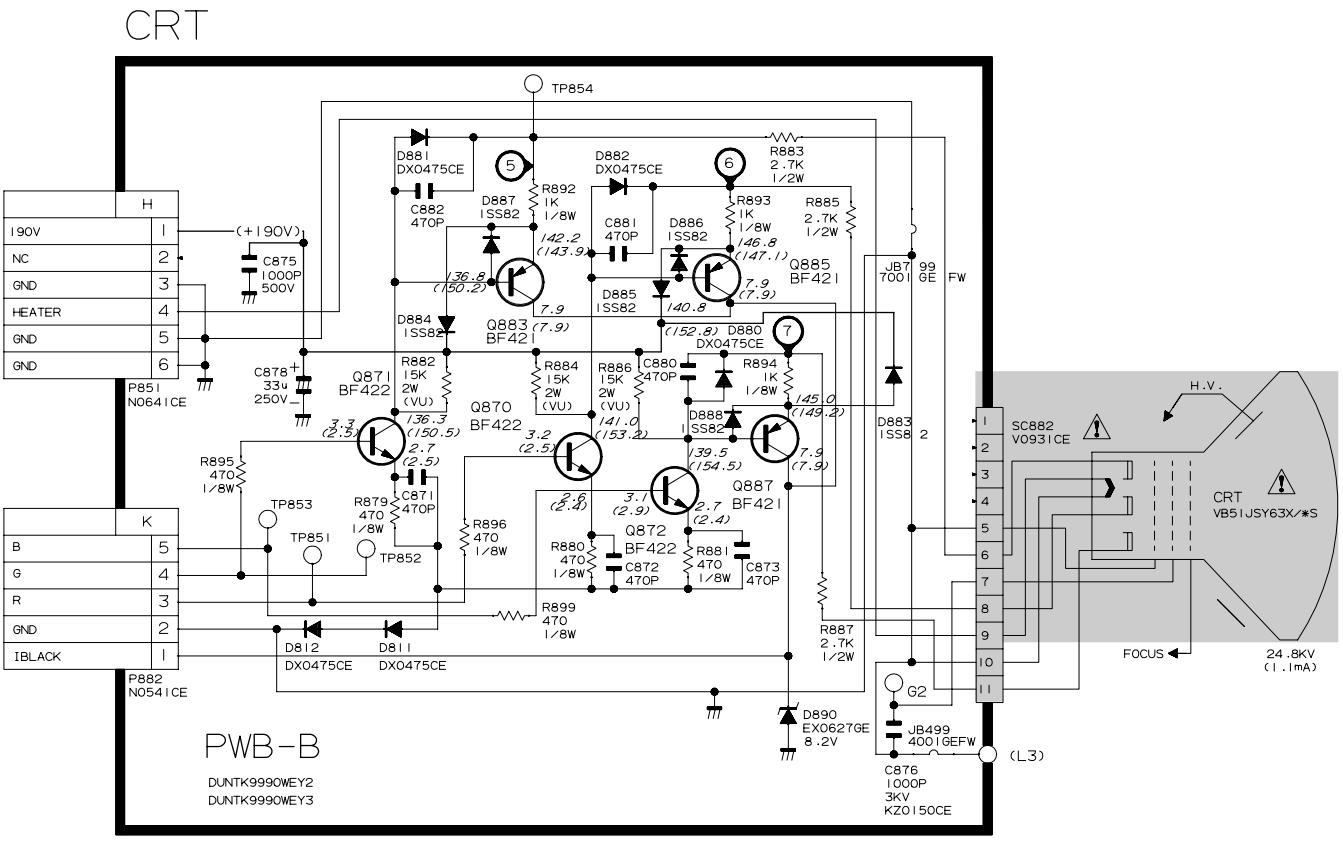
VOLTAGE MEASUREMENT CONDITIONS:

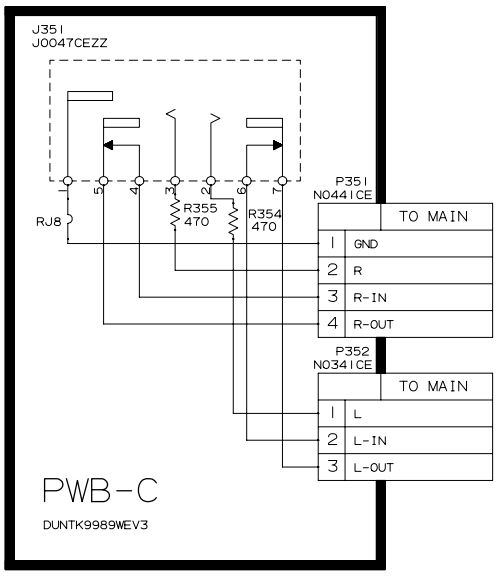
1. *Voltage in parenthesis measured with no Signal.*
2. *Voltages without parenthesis measured with PAL Colour-Signal.*
3. *All the voltages in each point are measured with high impedence volt-meter.*

WAVEFORM MEASUREMENT CONDITIONS:

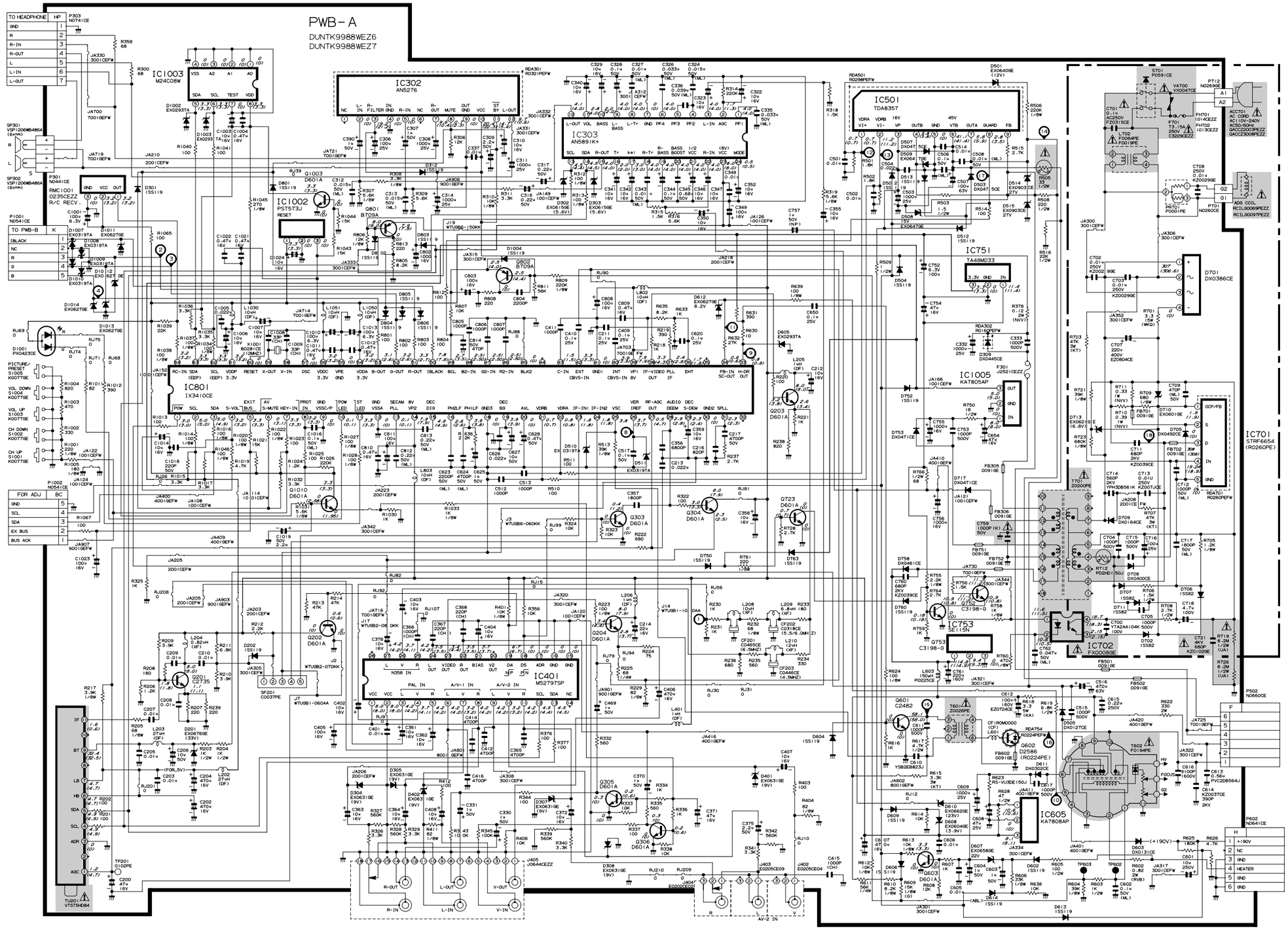
1. *Colour bar generator signal of 1.8V peak to peak applied at Base of Video Buffer Amp. Q200.*
2. *Approximately 4.0 V AGC bias.*

SCHEMATIC DIAGRAM: CRT and HEADPHONE Unit

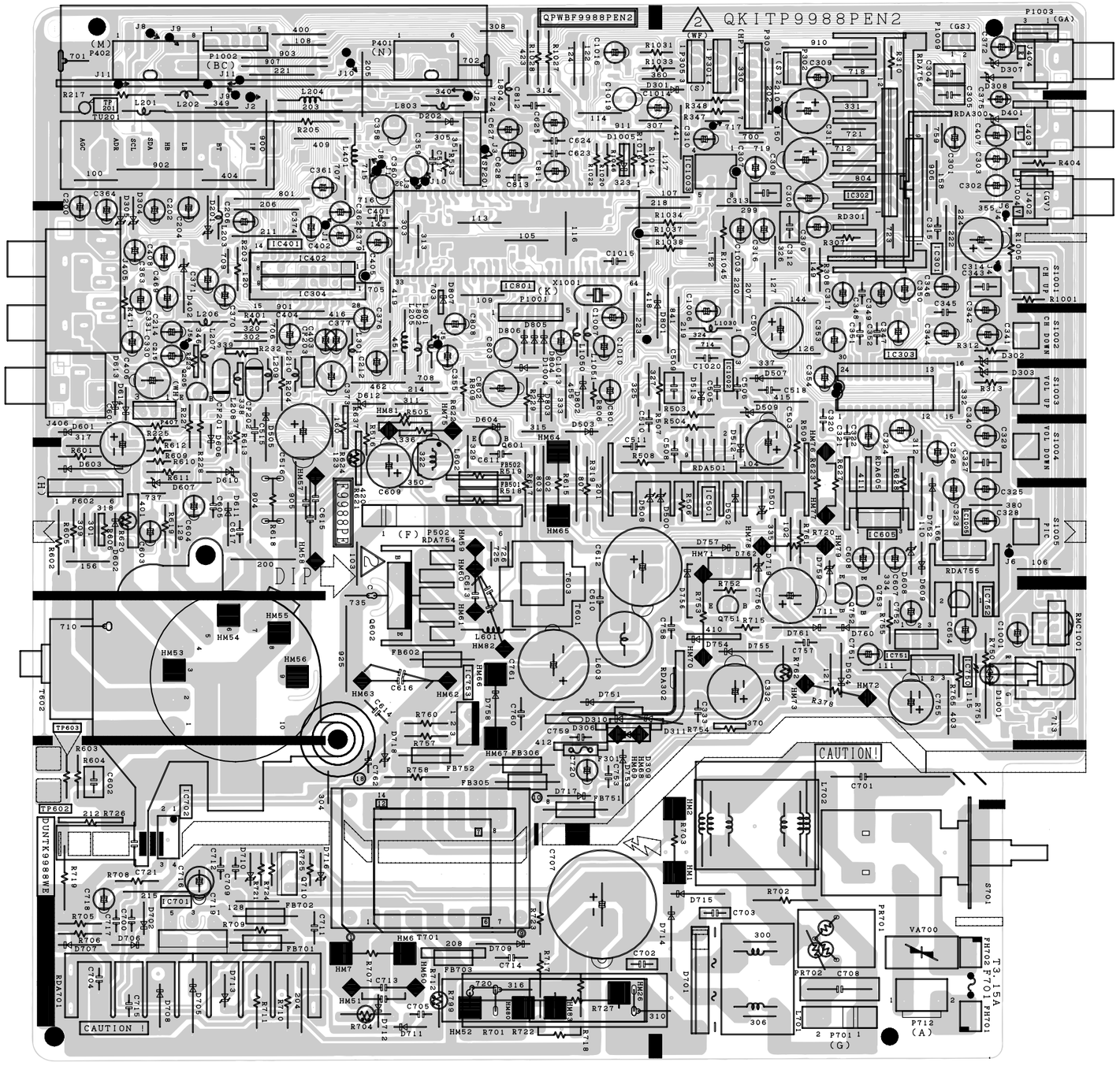




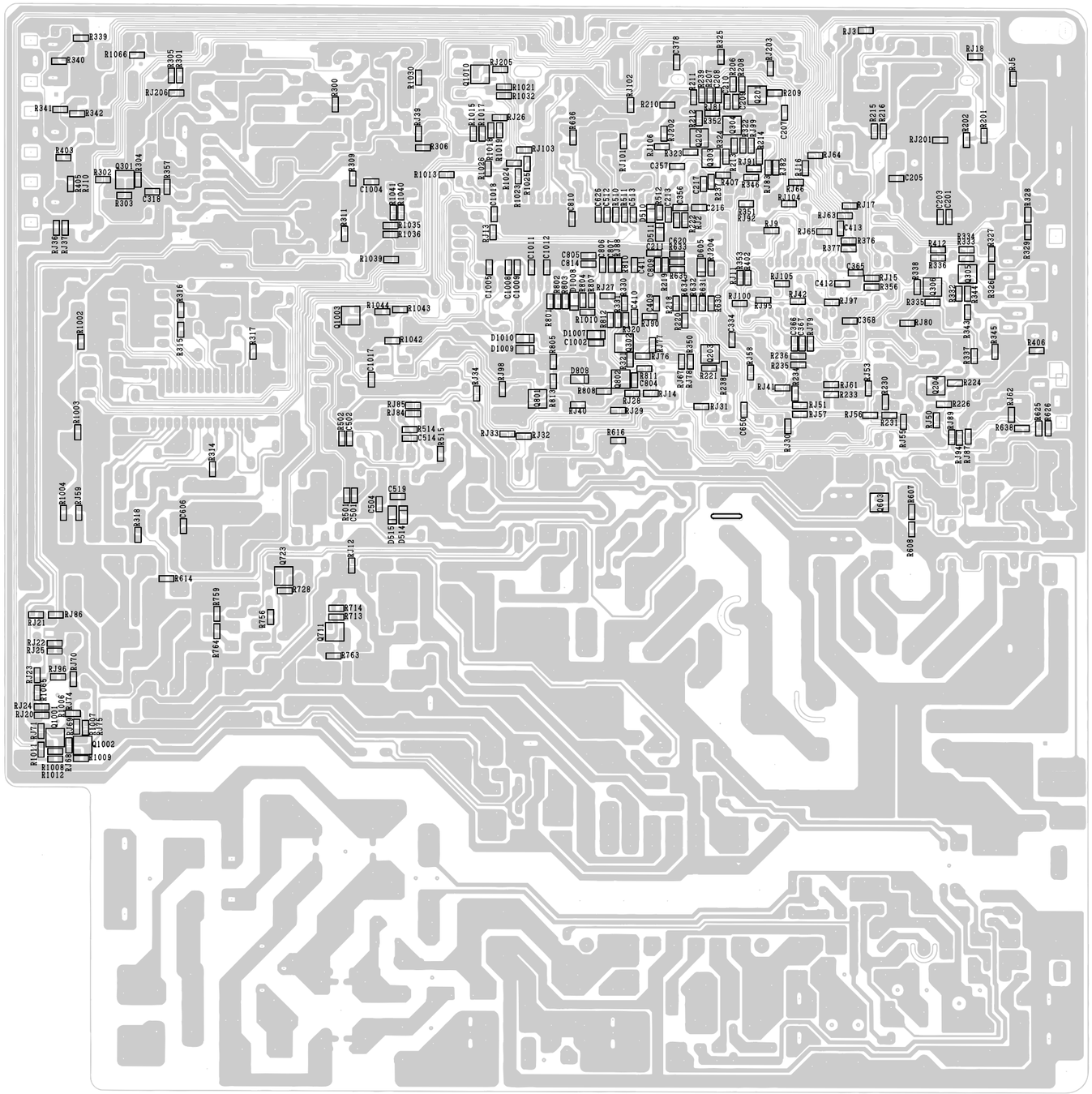
SCHEMATIC DIAGRAM: MAIN Unit



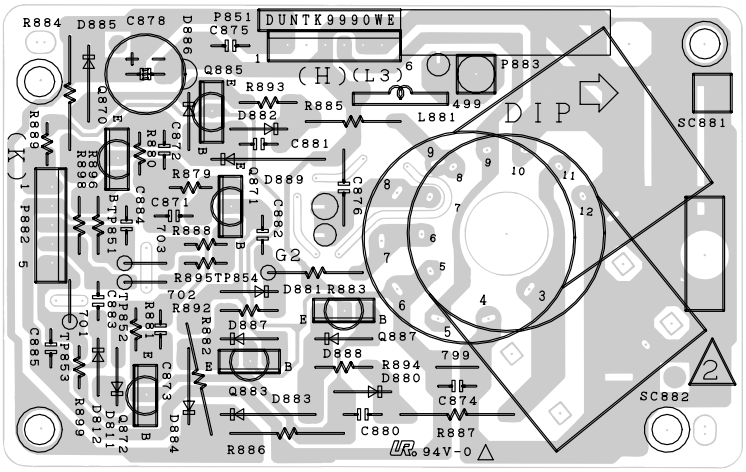
PRINTED WIRING BOARD ASSEMBLIES



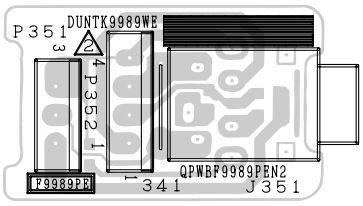
PWB-A: MAIN Unit (Component Side)



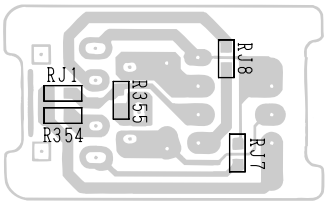
PWB-A: MAIN Unit (Chip Parts Side)



PWB-B: CRT Unit (Wiring Side)



(Component Side)

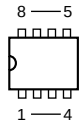


(Chip Parts Side)

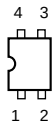
PWB-C: HEADPHONE Unit

SOLID STATE DEVICE BASE DIAGRAM

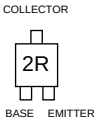
TOP VIEW



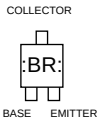
M24C08W



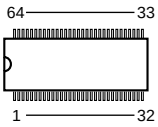
FX0008GE



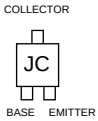
D601A



B709A

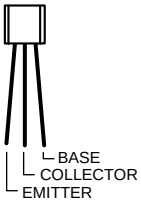


IX3410CE



2SC2735

SIDE VIEW



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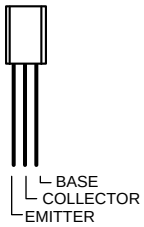

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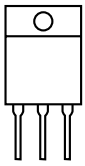
PST573J



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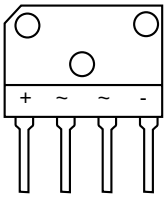

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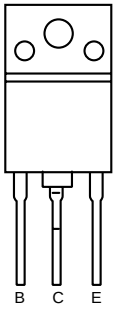

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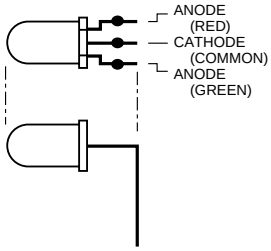

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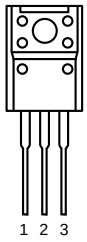
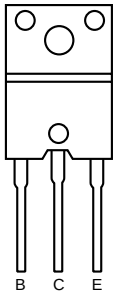


KA7808
KA7805



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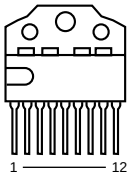
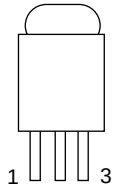


AN5276



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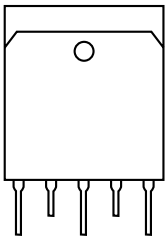
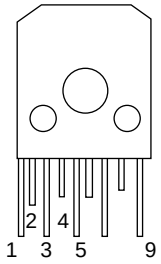


STRF6654



TDA8357

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

MARK ★: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

⚠	VB51JSY63X/*S	R	Picture Tube	CE
⚠	QEARC2107PEZZ	R	Groundiing Strap	AE
⚠	RCiLG0069PEZZ	R	Degaussing Coil (21B-S10G)	AR
⚠	RCiLG0097PEZZ	R	Degaussing Coil (21B-S10F)	AP
⚠	RCiLH0146PEZZ	R	Deflection Yoke	BF
	LHLDW0003PEKZ	R	ADG Coil Holder, x3	AB
	LHLDW1075PEKZ	R	Holder	AC
	MSPRT0001PEFJ	R	CRT Spring	AC
	PMAGF3046CEZZ	R	Purity Magnet	AF
	PSPAG0003PEZZ	R	Spacer, x3	AD

PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

PWB-A	DUNTK9988WEZ6	–	MAIN Unit (21B-S10F)	—
PWB-A	DUNTK9988WEZ7	–	MAIN Unit (21B-S10G)	—
PWB-B	DUNTK9990WEY2	–	CRT Unit (21B-S10F)	—
PWB-B	DUNTK9990WEY3	–	CRT Unit (21B-S10G)	—
PWB-C	DUNTK9989WEV3	–	HEADPHONE Unit	—

PWB-A DUNTK9988WEZ6/7 MAIN UNIT

TUNER

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

⚠	TU201	VTUVTST5HD84/	R	Tuner	BB

INTEGRATED CIRCUITS

IC302	VHiAN5276//-1	R	AN5276	AR
IC303	VHiAN5891K+-1	R	AN5891K	AQ
IC401	VHiM52797SP-1	R	M52797SP	AP
IC501	VHiTDA8357/-1	R	TDA8357J/N1/S1	AN
IC605	VHiKA7808AP-1	R	KA7808API	AE
IC701	VHiSTRF6654-1	R	STRF6654	AX
⚠ IC702	RH-FX0008GEZZ	R	PC123FY8	AE
IC751	VHiTA48M033-1	R	TA48M033F	AH
IC753	VHiSE115N//-1	R	SE115N	AF
IC801	RH-iX3410CEN4	R	IX3410CE	BD
IC1002	VHiPST573J/-1	R	PST573J	AE
IC1003	VHiM24C08W/-1	R	M24C08W	AH
IC1005	VHiKA7805AP-1	R	KA7805API	AE

TRANSISTORS

Q201	VS2SC2735//1E	R	2SC2735	AC
Q202	VS2SD601A//-1	R	2SD601A	AC
Q203	VS2SD601A//-1	R	2SD601A	AC
Q204	VS2SD601A//-1	R	2SD601A	AC
Q303	VS2SD601A//-1	R	2SD601A	AC
Q304	VS2SD601A//-1	R	2SD601A	AC
Q305	VS2SD601A//-1	R	2SD601A	AC
Q306	VS2SD601A//-1	R	2SD601A	AC
Q601	VS2SC2482//-1	R	2SC2482	AD
Q602	VS2SD2586//1E	R	2SD2586	AM
Q603	VS2SD601A//-1	R	2SD601A	AC
Q723	VS2SD601A//-1	R	2SD601A	AC
Q752	VS2SC3198-G-1	R	2SC3198G	AA
Q753	VS2SC3198-G-1	R	2SC3198G	AA
Q801	VS2SB709A//-1	R	2SB709A	AA
Q802	VS2SB709A//-1	R	2SB709A	AA
Q1003	VS2SD601A//-1	R	2SD601A	AC
Q1010	VS2SD601A//-1	R	2SD601A	AC

DIODES

D201	RH-EX0676GEZZ	R	Zener Diode	AA
D202	RH-DX0475CEZZ	R	Diode	AB
D301	RH-DX0475CEZZ	R	Diode	AB
D302	RH-EX0615GEZZ	R	Zener Diode	AA
D303	RH-EX0615GEZZ	R	Zener Diode	AA
D304	RH-EX0631GEZZ	R	Zener Diode	AA
D305	RH-EX0631GEZZ	R	Zener Diode	AA
D307	RH-EX0631GEZZ	R	Zener Diode	AA
D308	RH-EX0631GEZZ	R	Zener Diode	AA
D309	RH-DX0445CEZZ	R	Diode	AL
D312	RH-DX0475CEZZ	R	Diode	AB
D401	RH-EX0631GEZZ	R	Zener Diode	AA
D402	RH-EX0631GEZZ	R	Zener Diode	AA
D501	RH-EX0640GEZZ	R	Zener Diode	AA
D502	RH-DX0475CEZZ	R	Diode	AB
D503	RH-DX0475CEZZ	R	Diode	AB
D504	RH-DX0475CEZZ	R	Diode	AB
D505	RH-DX0127CEZZ	R	Diode	AC
D507	RH-DX0475CEZZ	R	Diode	AB
D508	RH-EX0647GEZZ	R	Zener Diode	AA
D509	RH-EX0647GEZZ	R	Zener Diode	AA
D510	RH-EX0319TAZZ	R	Zener Diode	AB
D511	RH-EX0319TAZZ	R	Zener Diode	AB
D512	RH-DX0475CEZZ	R	Diode	AB
D513	RH-DX0475CEZZ	R	Diode	AB
D514	RH-EX0903CEZZ	R	Zener Diode	AC
D515	RH-EX0903CEZZ	R	Zener Diode	AC
D602	RH-DX0475CEZZ	R	Diode	AB
D603	RH-DX0131CEZZ	R	Diode	AC
D604	RH-DX0475CEZZ	R	Diode	AB
D605	RH-EX0293TAZZ	R	Zener Diode	AB
D606	RH-DX0475CEZZ	R	Diode	AB
D607	RH-EX0658GEZZ	R	Zener Diode	AA
D608	RH-EX0604GEZZ	R	Zener Diode	AB
D609	RH-DX0475CEZZ	R	Diode	AB
D610	RH-EX0662GEZZ	R	Zener Diode	AB
D611	RH-DX0302CEZZ	R	Diode	AC
D612	RH-EX0627GEZZ	R	Zener Diode	AA
D613	RH-DX0475CEZZ	R	Diode	AB
D614	RH-DX0475CEZZ	R	Diode	AB
D701	RH-DX0386CEZZ	R	Diode	AG
D702	VHD1SS82///1A	R	Diode	AC
D705	RH-DX0492CEZZ	R	Diode	AE
D706	VHD1SS82///1A	R	Diode	AC
D707	VHD1SS82///1A	R	Diode	AC
D708	RH-DX0400CEZZ	R	Diode	AC
D709	RH-DX0164CEZZ	R	Diode	AC
D710	RH-EX0601GEZZ	R	Zener Diode	AA
D711	VHD1SS82///1A	R	Diode	AC

Ref. No.	Part No.	★	Description	Code
PWB-A	**DUNTK9988WEZ6/7 MAIN UNIT (Continued)**			
D713	RH-EX0621GEZZ	R	Zener Diode	AB
D717	RH-DX0471CEZZ	R	Diode	AE
D750	RH-DX0475CEZZ	R	Diode	AB
D752	RH-DX0475CEZZ	R	Diode	AB
D753	RH-DX0471CEZZ	R	Diode	AE
D758	RH-DX0461CEZZ	R	Diode	AG
D760	RH-DX0475CEZZ	R	Diode	AB
D763	RH-DX0475CEZZ	R	Diode	AB
D801	RH-DX0475CEZZ	R	Diode	AB
D802	RH-DX0475CEZZ	R	Diode	AB
D803	RH-DX0475CEZZ	R	Diode	AB
D804	RH-DX0475CEZZ	R	Diode	AB
D805	RH-DX0475CEZZ	R	Diode	AB
D806	RH-DX0475CEZZ	R	Diode	AB
D1001	RH-PX0423CEZZ	R	Photodiode	AD
D1002	RH-EX0293TAZZ	R	Zener Diode	AB
D1003	RH-EX0293TAZZ	R	Zener Diode	AB
D1004	RH-DX0475CEZZ	R	Diode	AB
D1007	RH-EX0319TAZZ	R	Zener Diode	AB
D1008	RH-EX0319TAZZ	R	Zener Diode	AB
D1009	RH-EX0319TAZZ	R	Zener Diode	AB
D1010	RH-EX0319TAZZ	R	Zener Diode	AB
D1011	RH-EX0627GEZZ	R	Zener Diode	AA
D1012	RH-EX0627GEZZ	R	Zener Diode	AA
D1013	RH-EX0627GEZZ	R	Zener Diode	AA
D1014	RH-EX0627GEZZ	R	Zener Diode	AA
⚠ VA700	RH-VX0047CEZZ	R	Varistor	AF
PACKAGED CIRCUITS				
PR701	RMPTP0001PEZZ	J	Packaged Circuit	AN
X1001	RCRSB0281CEZZ	R	Crystal	AG
FILTERS AND COILS				
CF201	RFiLC0465CEZZ	R	Ceramic Filter	AD
CF202	RFiLC0318CEZZ	R	Ceramic Filter	AG
CF203	RFiLC0446CEZZ	R	Ceramic Filter	AD
L202	VP-DF270K0000	R	Peaking 27µH	AB
L203	VP-DF270K0000	R	Peaking 27µH	AB
L204	VP-XFR82K0000	R	Peaking 0.82µH	AB
L205	VP-DF1R0K0000	R	Peaking 1µH	AB
L206	VP-DF1R0K0000	R	Peaking 1µH	AB
L208	VP-XF100K0000	R	Peaking 10µH	AB
L209	VP-XF6R8K0000	R	Peaking 6.8µH	AB
L210	VP-XF120K0000	R	Peaking 12µH	AB
L401	VP-DF1R0K0000	R	Peaking 1µH	AB
L601	VP-CF1R0M0000	R	Peaking 1µH	AB
L603	RCiLP0225CEZZ	R	Coil	AF
L702	RCiLF0019PEZZ	J	Coil (21B-S10G)	AN
L702	RCiLF0084PEZZ	J	Coil (21B-S10F)	AG
L802	VP-DF100K0000	R	Peaking 10µH	AB
L803	VP-DF100K0000	R	Peaking 10µH	AB
L1030	VP-DF100K0000	R	Peaking 10µH	AB
L1050	VP-DF100K0000	R	Peaking 10µH	AB
L1051	VP-DF100K0000	R	Peaking 10µH	AB
SF201	RFiLC0037PEZZ	J	SAW Filter	AP
TRANSFORMERS				
⚠ T601	RTRNZ0026PEZZ	J	Transformer	AH
⚠ T602	RTRNF0194PEN1	J	H-Volt Transformer	AZ
⚠ T701	RTRNZ0200PEZZ	J	Transformer	AT
CAPACITORS				
C200	VCEA0A1CW476M	R	47 16V Electrolytic	AB
C202	VCEA0A1CW477M	R	470 16V Electrolytic	AC
C203	VCKYCY1HF103Z	R	0.01 50V Ceramic	AA
C204	VCEA0A1CW477M	R	470 16V Electrolytic	AC
C205	VCKYCY1HF103Z	R	0.01 50V Ceramic	AA
C206	VCEA0A1HW106M	R	10 50V Electrolytic	AB
C207	VCKYCY1HF103Z	R	0.01 50V Ceramic	AA
C208	VCKYCY1HF103Z	R	0.01 50V Ceramic	AA
C209	VCKYCY1HF103Z	R	0.01 50V Ceramic	AA
C210	VCKYCY1HF103Z	R	0.01 50V Ceramic	AA
C211	VCKYCY1EF104Z	R	0.1 25V Ceramic	AA
C212	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C213	VCKYCY1HF223Z	R	0.022 50V Ceramic	AB
C214	VCEA0A1CW226M	R	22 16V Electrolytic	AB
C216	VCKYCY1HB821K	R	820p 50V Ceramic	AA
C217	VCKYCY1HB472K	R	4700p 50V Ceramic	AA
C306	VCEA0A1EW107M	R	100 25V Electrolytic	AC
C307	VCEA0A1HW105M	R	1.0 50V Electrolytic	AB
C308	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C309	VCEA0A1HW225M	R	2.2 50V Electrolytic	AB
C310	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C311	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C312	VCQYTA1HM153J	R	0.015 50V Mylar	AA
C313	VCQYTA1HM153J	R	0.015 50V Mylar	AA
C314	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C316	VCEA0A1HW224M	R	0.22 50V Electrolytic	AB
C317	VCEA0A1HW224M	R	0.22 50V Electrolytic	AB
C322	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C323	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C324	VCQYTA1HM153J	R	0.015 50V Mylar	AA
C326	VCQYTA1HM333J	R	0.033 50V Mylar	AA
C327	VCQYTA1HM103J	R	0.01 50V Mylar	AA
C328	VCEA0A1HW104M	R	0.1 50V Electrolytic	AB
C329	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C330	VCEA0A1HW105M	R	1.0 50V Electrolytic	AB
C331	VCEA0A1HW105M	R	1.0 50V Electrolytic	AB
C332	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C333	VCKYPA2HB102K	R	1000p 500V Ceramic	AA
C335	VCQYTA1HM333J	R	0.033 50V Mylar	AA
C336	VCQYTA1HM393J	R	0.039 50V Mylar	AA
C337	VCKYCY1HB103K	R	0.01 50V Ceramic	AA
C340	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C341	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C342	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C343	VCQYTA1HM103J	R	0.01 50V Mylar	AA
C344	VCEA0A1HW104M	R	0.1 50V Electrolytic	AB
C345	VCFYFA1HA684J	R	0.68 50V Mylar	AD
C346	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C347	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C348	VCKYPA1HF103Z	R	0.01 50V Ceramic	AA
C349	VCEA0A1CW107M	R	100 16V Electrolytic	AC
C350	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C352	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C355	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C356	VCKYCY1HB682K	R	6800p 50V Ceramic	AA
C357	VCKYCY1HB182K	R	1800p 50V Ceramic	AA
C358	VCEA9M1CW106M	R	10 16V Electrolytic	AB
C359	VCEA9M1CW106M	R	10 16V Electrolytic	AB
C361	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C362	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C363	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C364	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C365	VCKYCY1HB472K	R	4700p 50V Ceramic	AA
C366	VCKYCY1HB102K	R	1000p 50V Ceramic	AA
C367	VCKYCY1HB221K	R	220p 50V Ceramic	AA
C368	VCKYCY1HB221K	R	220p 50V Ceramic	AA
C370	VCEA0A1HW105M	R	1.0 50V Electrolytic	AB
C371	VCEA0A1CW476M	R	47 16V Electrolytic	AB
C372	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C375	VCEAEA1HW225M	R	2.2 50V Electrolytic	AB
C376	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C390	VCEA0A1HW105M	R	1.0 50V Electrolytic	AB
C401	VCKYPA1HF103Z	R	0.01 50V Ceramic	AA
C402	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C403	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C404	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C405	VCEA0A1CW107M	R	100 16V Electrolytic	AC
C406	VCEA0A1CW477M	R	470 16V Electrolytic	AC
C407	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C408	VCEA0A1CW106M	R	10 16V Electrolytic	AB
C409	VCKYCY1EF104Z	R	0.1 25V Ceramic	AA
C410	VCKYCY1EF104Z	R	0.1 25V Ceramic	AA
C411	VCKYCY1HB102K	R	1000p 50V Ceramic	AA
C412	VCKYCY1HB472K	R	4700p 50V Ceramic	AA
C414	VCKYCY1HB472K	R	4700p 50V Ceramic	AA
C415	VCKYCY1HB102K	R	1000p 50V Ceramic	AA

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Ref. No.	Part No.	★			Description	Code
C416	VCKYCY1HB472K	R	4700p	50V	Ceramic	AA
C469	VCEA0A1HW105M	R	1.0	50V	Electrolytic	AB
C501	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C502	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C503	VCEA0A1EW108M	R	1000	25V	Electrolytic	AD
C504	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C506	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C507	VCEA0A1JW107M	R	100	63V	Electrolytic	AC
C508	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C512	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C513	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C514	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C515	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C516	VCEA0A1JW477M	R	470	63V	Electrolytic	AE
C517	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C601	VCEAGA2EW106M	R	10	250V	Electrolytic	AC
C602	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C603	VCEA0A1HW105M	R	1.0	50V	Electrolytic	AB
C604	VCEA0A1HW105M	R	1.0	50V	Electrolytic	AB
C605	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C606	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C607	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C608	VCEA0A1EW476M	R	47	25V	Electrolytic	AB
C609	VCEA0A1EW108M	R	1000	25V	Electrolytic	AD
C610	VCFYSB2EB823J	R	0.082	250V	Mylar	AD
C611	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C612	RC-EZ0724CEZZ	R	100	160V	Electrolytic	AG
C613	VCFPVC2DB564J	R	0.56	200V	Polypro Film	AF
C614	RC-KZ0037CEZZ	R	390p	2kV	Ceramic	AB
C615	VCFPPB2EB224J	R	0.22	250V	Polypro Film	AD
C616	VCFPPD3CA912H	R	9100p	1.6kV	Polypro Film	AE
C617	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C620	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C623	VCQYTA1HM222J	R	2200p	50V	Mylar	AA
C624	VCQYTA1HM472J	R	4700p	50V	Mylar	AB
C625	VCEA0A1HW105M	R	1.0	50V	Electrolytic	AB
C626	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C627	VCEA0A1HW106M	R	10	50V	Electrolytic	AB
C628	VCEA0A1HW474M	R	0.47	50V	Electrolytic	AB
C650	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C654	VCEA0A1CW476M	R	47	16V	Electrolytic	AB
C700	VCQYTA2AA104K	R	0.1	100V	Mylar	AB
⚠ C701	RC-FZ031SCEZZ	R	0.1	AC250V		AD
C702	RC-KZ0160GEZZ	R	0.01	250V	Ceramic	AC
C703	RC-KZ0160GEZZ	R	0.01	250V	Ceramic	AC
C704	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C705	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C707	RC-EZ0804CEZZ	R	220	400V	Electrolytic	AU
C708	RC-KZ0160GEZZ	R	0.01	250V	Ceramic	AC
C709	VCQYTA1HM471J	R	470p	50V	Mylar	AB
C711	RC-KZ0339CEZZ	R	680p	2kV	Ceramic	AD
C712	VCQYTA1HM102J	R	1000p	50V	Mylar	AA
C713	RC-KZ007JCEZZ	R	0.01	250V	Ceramic	AC
C714	RC-KZ0338CEZZ	R	560p	2kV	Ceramic	AD
C715	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C716	VCEA0A1EW107M	R	100	25V	Electrolytic	AC
C717	VCQYTA1HM182J	R	1800p	50V	Mylar	AA
C718	VCEAGA2AW475M	R	4.7	100V	Electrolytic	AB
⚠ C721	RC-KZ0102GEZZ	R	680p	4kV	Ceramic	AE
C752	VCEA0A0JW107M	R	100	6.3V	Electrolytic	AB
C753	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C754	VCEA0A1CW476M	R	47	16V	Electrolytic	AB
C755	VCEA0A1CW108M	R	1000	16V	Electrolytic	AD
C756	VCEA0A1CW108M	R	1000	16V	Electrolytic	AD
C757	VCE9GA1HW105M	R	1.0	50V	Elect. (N.P)	AB
⚠ C759	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C760	RC-KZ0339CEZZ	R	680p	2kV	Ceramic	AD
C761	VCEA4W2CN227M	R	220	160V	Electrolytic	AG
C762	VCQYTA1HM473J	R	0.047	50V	Mylar	AA
C802	VCEA0A1CW108M	R	1000	16V	Electrolytic	AD
C803	VCEA9M1CW107M	R	100	16V	Electrolytic	AB
C804	VCKYCY1HB222K	R	2200p	50V	Ceramic	AA
C805	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C806	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C807	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C808	VCEA0A1CW107M	R	100	16V	Electrolytic	AC
C809	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C810	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C811	VCEA0A1CW107M	R	100	16V	Electrolytic	AC
C812	VCFYFA1HA224J	R	0.22	50V	Mylar	AB
C813	VCFYFA1HA224J	R	0.22	50V	Mylar	AB
C814	VCKYCY1HB471K	R	470p	50V	Ceramic	AA
C1001	VCEA0A0JW107M	R	100	6.3V	Electrolytic	AB
C1003	VCEA0A1CW106M	R	10	16V	Electrolytic	AB
C1004	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C1005	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C1006	VCEA0A1CW106M	R	10	16V	Electrolytic	AB
C1007	VCEA0A1CW106M	R	10	16V	Electrolytic	AB
C1008	VCCCCY1HH330J	R	33p	50V	Ceramic	AA
C1009	VCCCCY1HH330J	R	33p	50V	Ceramic	AA
C1010	VCEA0A0JW107M	R	100	6.3V	Electrolytic	AB
C1011	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C1012	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C1013	VCEA0A0JW107M	R	100	6.3V	Electrolytic	AB
C1014	VCEA0A1CW106M	R	10	16V	Electrolytic	AB
C1016	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1018	VCKYCY1HB221K	R	220p	50V	Ceramic	AA
C1019	VCEA9M1HW225M	R	2.2	50V	Electrolytic	AB
C1021	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C1022	VCKYCY1CF474Z	R	0.47	16V	Ceramic	AB
C1023	VCEA0A1CW107M	R	100	16V	Electrolytic	AC
C1024	VCEA0A1CW106M	R	10	16V	Electrolytic	AB

RESISTORS

RJ2	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ9	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ10	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ12	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ13	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ15	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ16	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ21	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ25	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ26	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ27	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ30	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ31	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ32	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ33	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ34	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ39	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ41	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ42	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ43	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ51	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ53	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ55	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ56	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ58	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ61	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ64	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ66	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ67	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ68	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ69	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ71	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ74	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ75	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ79	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ80	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ81	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ82	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ84	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ85	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ87	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ88	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ89	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ90	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA

PWB-A DUNTK9988WEZ6/7 MAIN UNIT (Continued)

Ref. No.	Part No.	★		Description		Code
RJ92	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ94	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ95	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ96	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ97	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ99	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ103	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ105	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ107	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ201	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ205	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ206	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ208	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ209	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
RJ210	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
R201	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R202	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R203	VRD-RM2HD102J	R	1.0k	1/2W	Carbon	AA
R204	VRD-RM2HD102J	R	1.0k	1/2W	Carbon	AA
R205	VRD-RA2BE680J	R	68	1/8W	Carbon	AA
R206	VRN-MD2AL122J	R	1.2k	1/10W	Metal Film	AA
R207	VRN-MD2AL221J	R	220	1/10W	Metal Film	AA
R208	VRN-MD2AL181J	R	180	1/10W	Metal Film	AA
R209	VRN-MD2AL392J	R	3.9k	1/10W	Metal Film	AA
R210	VRN-MD2AL392J	R	3.9k	1/10W	Metal Film	AA
R211	VRN-MD2AL682J	R	6.8k	1/10W	Metal Film	AA
R212	VRN-MD2AL222J	R	2.2k	1/10W	Metal Film	AA
R213	VRN-MD2AL473J	R	47k	1/10W	Metal Film	AA
R214	VRN-MD2AL473J	R	47k	1/10W	Metal Film	AA
R216	VRN-MD2AL681J	R	680	1/10W	Metal Film	AA
R217	VRD-RA2BE392J	R	3.9k	1/8W	Carbon	AA
R218	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R219	VRN-MD2AL391J	R	390	1/10W	Metal Film	AA
R220	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R221	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R222	VRN-MD2AL681J	R	680	1/10W	Metal Film	AA
R223	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R224	VRN-MD2AL750J	R	75	1/10W	Metal Film	AA
R225	VRD-RA2EE680J	R	68	1/4W	Carbon	AA
R229	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R230	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R231	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R232	VRD-RA2BE680J	R	68	1/8W	Carbon	AA
R233	VRN-MD2AL181J	R	180	1/10W	Metal Film	AA
R234	VRN-MD2AL331J	R	330	1/10W	Metal Film	AA
R235	VRN-MD2AL561J	R	560	1/10W	Metal Film	AA
R236	VRN-MD2AL681J	R	680	1/10W	Metal Film	AA
R237	VRN-MD2AL272J	R	2.7k	1/10W	Metal Film	AA
R238	VRN-MD2AL821J	R	820	1/10W	Metal Film	AA
R239	VRN-MD2AL221J	R	220	1/10W	Metal Film	AA
R300	VRN-MD2AL680J	R	68	1/10W	Metal Film	AA
R306	VRN-MD2AL123J	R	12k	1/10W	Metal Film	AA
R307	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R308	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R309	VRN-MD2AL562J	R	5.6k	1/10W	Metal Film	AA
R310	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R311	VRN-MD2AL332J	R	3.3k	1/10W	Metal Film	AA
R312	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R313	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R314	VRN-MD2AL224J	R	220k	1/10W	Metal Film	AA
R315	VRN-MD2AL152J	R	1.5k	1/10W	Metal Film	AA
R316	VRN-MD2AL562J	R	5.6k	1/10W	Metal Film	AA
R318	VRN-MD2AL152J	R	1.5k	1/10W	Metal Film	AA
R319	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R322	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R323	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R324	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R325	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R326	VRN-MD2AL332J	R	3.3k	1/10W	Metal Film	AA
R327	VRN-MD2AL564J	R	560k	1/10W	Metal Film	AA
R328	VRN-MD2AL564J	R	560k	1/10W	Metal Film	AA
R329	VRN-MD2AL332J	R	3.3k	1/10W	Metal Film	AA
R332	VRN-MD2AL561J	R	560	1/10W	Metal Film	AA
R333	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R334	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R335	VRN-MD2AL561J	R	560	1/10W	Metal Film	AA
R336	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R337	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R338	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R339	VRN-MD2AL564J	R	560k	1/10W	Metal Film	AA
R340	VRN-MD2AL332J	R	3.3k	1/10W	Metal Film	AA
R341	VRN-MD2AL332J	R	3.3k	1/10W	Metal Film	AA
R342	VRN-MD2AL564J	R	560k	1/10W	Metal Film	AA
R343	VRN-MD2AL104J	R	100k	1/10W	Metal Film	AA
R344	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R345	VRN-MD2AL104J	R	100k	1/10W	Metal Film	AA
R356	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R358	VRN-MD2AL680J	R	68	1/10W	Metal Film	AA
R376	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R377	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R378	VRN-VV3DBR12J	R	0.12	2W	Metal Film	AB
R401	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R403	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R404	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R406	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R411	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R412	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R501	VRN-MD2AL182J	R	1.8k	1/10W	Metal Film	AA
R502	VRN-MD2AL182J	R	1.8k	1/10W	Metal Film	AA
R503	VRD-RM2HD1R5J	R	1.5	1/2W	Carbon	AA
⚠ R505	VRG-PD2HD330J	R	33	1/2W	Fuse Resistor	AC
R506	VRD-RA2BE224J	R	220k	1/8W	Carbon	AA
R508	VRD-RM2HD221J	R	220	1/2W	Carbon	AA
R509	VRD-RM2HD1R0J	R	1.0	1/2W	Carbon	AA
R510	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R511	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R513	VRD-RA2BE393J	R	39k	1/8W	Carbon	AA
R514	VRN-MD2AL101J	R	100	1/10W	Metal Film	AA
R515	VRN-MD2AL272J	R	2.7k	1/10W	Metal Film	AA
R516	VRD-RM2HD223J	R	22k	1/2W	Carbon	AA
R602	VRN-VV3DBR82J	R	0.82	2W	Metal Film	AB
R603	VRD-RM2HD102J	R	1.0k	1/2W	Carbon	AA
R604	VRD-RA2BE393J	R	39k	1/8W	Carbon	AA
R605	VRD-RM2HD101J	R	100	1/2W	Carbon	AA
R606	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R607	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R608	VRN-MD2AL123J	R	12k	1/10W	Metal Film	AA
R609	VRD-RA2BE153G	R	15k	1/8W	Carbon	AA
R610	VRD-RA2BE822J	R	8.2k	1/8W	Carbon	AA
R611	VRD-RA2EE563G	R	56k	1/4W	Carbon	AA
R612	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R613	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R614	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R615	VRS-KT3LB332J	R	3.3k	3.0W	Metal Oxide	AC
R616	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R617	VRD-RM2HD472J	R	4.7k	1/2W	Carbon	AA
R618	VRS-KA3HG3R3K	R	3.3	5W	Metal Oxide	AD
R619	VRD-RM2HD682J	R	6.8k	1/2W	Carbon	AA
R622	VRS-VV3DB331J	R	330	2W	Metal Oxide	AA
R623	VRS-VV3DB150J	R	15	2W	Metal Oxide	AA
R624	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R625	VRN-MD2AL184J	R	180k	1/10W	Metal Film	AA
R626	VRN-MD2AL472J	R	4.7k	1/10W	Metal Film	AA
R628	VRD-RM2HD470J	R	47	1/2W	Carbon	AA
R630	VRN-MD2AL100J	R	10	1/10W	Metal Film	AA
R631	VRN-MD2AL391J	R	390	1/10W	Metal Film	AA
R632	VRN-MD2AL273J	R	27k	1/10W	Metal Film	AA
R633	VRN-MD2AL102J	R	1.0k	1/10W	Metal Film	AA
R635	VRN-MD2AL822J	R	8.2k	1/10W	Metal Film	AA
R636	VRN-MD2AL223J	R	22k	1/10W	Metal Film	AA
R638	VRN-MD2AL103J	R	10k	1/10W	Metal Film	AA
R639	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R701	VRW-KQ41C3R3K	R	3.3	15W	Cement	AG
R703	VRS-KT3LB473J	R	47k	3.0W	Metal Oxide	AE
R705	VRD-RA2BE122J	R	1.2k	1/8W	Carbon	AA
R706	VRD-RM2HD152J	R	1.5k	1/2W	Carbon	AA
R707	VRS-KT3LB473J	R	47k	3.0W	Metal Oxide	AE
R708	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA

Ref. No.	Part No.	★	Description	Code
PWB-A	**DUNTK9988WEZ6/7 MAIN UNIT (Continued)**			
R709	VRD-RA2BE681J	R	680 1/8W Carbon	AA
R710	VRN-VV3ABR39J	R	0.39 1W Metal Film	AA
R711	VRN-VV3ABR33J	R	0.33 1W Metal Film	AA
⚠ R712	VRG-PD2HD150J	R	15 1/2W Fuse Resistor	AC
⚠ R719	VRC-UA2HG825K	R	8.2M 1/2W Solid	AA
R721	VRD-RA2BE393J	R	39k 1/8W Carbon	AA
R723	VRD-RA2BE684J	R	680k 1/8W Carbon	AA
⚠ R726	VRC-UA2HG825K	R	8.2M 1/2W Solid	AA
R728	VRN-MD2AL272J	R	2.7k 1/10W Metal Film	AA
R750	VRD-RM2HD180J	R	18 1/2W Carbon	AA
R755	VRD-RA2BE222J	R	2.2k 1/8W Carbon	AA
R756	VRN-MD2AL152J	R	1.5k 1/10W Metal Film	AA
R758	VRD-RA2BE102J	R	1.0k 1/8W Carbon	AA
R759	VRN-MD2AL102J	R	1.0k 1/10W Metal Film	AA
R760	VRD-RA2BE471J	R	470 1/8W Carbon	AA
R761	VRD-RA2BE221J	R	220 1/8W Carbon	AA
R764	VRN-MD2AL272J	R	2.7k 1/10W Metal Film	AA
R766	VRD-RM2HD680J	R	68 1/2W Carbon	AA
R801	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R802	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R803	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R804	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R805	VRN-MD2AL822J	R	8.2k 1/10W Metal Film	AA
R806	VRD-RA2BE123J	R	12k 1/8W Carbon	AA
R807	VRN-MD2AL103J	R	10k 1/10W Metal Film	AA
R808	VRN-MD2AL221J	R	220 1/10W Metal Film	AA
R809	VRD-RA2BE224J	R	220k 1/8W Carbon	AA
R811	VRN-MD2AL563J	R	56k 1/10W Metal Film	AA
R812	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R813	VRN-MD2AL221J	R	220 1/10W Metal Film	AA
R1001	VRD-RA2BE221J	R	220 1/8W Carbon	AA
R1002	VRN-MD2AL331J	R	330 1/10W Metal Film	AA
R1003	VRN-MD2AL471J	R	470 1/10W Metal Film	AA
R1004	VRN-MD2AL821J	R	820 1/10W Metal Film	AA
R1005	VRD-RA2BE181J	R	180 1/8W Carbon	AA
R1011	VRN-MD2AL820J	R	82 1/10W Metal Film	AA
R1012	VRN-MD2AL391J	R	390 1/10W Metal Film	AA
R1013	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R1014	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1015	VRN-MD2AL332J	R	3.3k 1/10W Metal Film	AA
R1016	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1017	VRN-MD2AL332J	R	3.3k 1/10W Metal Film	AA
R1019	VRN-MD2AL472J	R	4.7k 1/10W Metal Film	AA
R1020	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1021	VRN-MD2AL153J	R	15k 1/10W Metal Film	AA
R1022	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1023	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R1024	VRN-MD2AL122J	R	1.2k 1/10W Metal Film	AA
R1025	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R1026	VRN-MD2AL224J	R	220k 1/10W Metal Film	AA
R1027	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1028	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1030	VRN-MD2AL102J	R	1.0k 1/10W Metal Film	AA
R1031	VRD-RA2BE562J	R	5.6k 1/8W Carbon	AA
R1032	VRN-MD2AL332J	R	3.3k 1/10W Metal Film	AA
R1033	VRD-RA2BE102J	R	1.0k 1/8W Carbon	AA
R1034	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1035	VRN-MD2AL332J	R	3.3k 1/10W Metal Film	AA
R1036	VRN-MD2AL332J	R	3.3k 1/10W Metal Film	AA
R1037	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1038	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1039	VRN-MD2AL223J	R	22k 1/10W Metal Film	AA
R1040	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R1041	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R1043	VRN-MD2AL153J	R	15k 1/10W Metal Film	AA
R1044	VRN-MD2AL153J	R	15k 1/10W Metal Film	AA
R1045	VRD-RA2BE271J	R	270 1/8W Carbon	AA
R1046	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1065	VRN-MD2AL101J	R	100 1/10W Metal Film	AA
R1067	VRN-MD2AL101J	R	100 1/10W Metal Film	AA

Ref. No.	Part No.	★	Description	Code
SWITCHES				
⚠ S701	QSW-P0591CEZZ	R	MAIN Power	AQ
S1001	QSW-K0077GEZZ	R	CH-Up	AB
S1002	QSW-K0077GEZZ	R	CH-Down	AB
S1003	QSW-K0077GEZZ	R	VOL-Up	AB
S1004	QSW-K0077GEZZ	R	VOL-Down	AB
S1005	QSW-K0077GEZZ	R	Picture/Preset	AB
MISCELLANEOUS PARTS				
F301	QFS-J2521CEZZ	R	Fuse	AF
⚠ F701	QFS-C3229CEZZ	R	Fuse T3.15A/250V	AD
FB305	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB306	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB501	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB502	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB602	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB701	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB702	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB751	RBLN-0091GEZZ	R	Ferrite Bead	AB
FB752	RBLN-0091GEZZ	R	Ferrite Bead	AB
FH701	QFSHD1014CEZZ	R	Fuse Holder	AC
FH702	QFSHD1013CEZZ	R	Fuse Holder	AC
J20	QCNW-2553PEZZ	J	Connecting Cord	AC
J21	QCNW-2554PEZZ	J	Connecting Cord	AC
J402	QJAKE0205CE04	R	Jack	AD
J403	QJAKE0205CE09	R	Jack	AD
J404	QJAKE0202CE02	R	Jack	AD
J405	QTANJ0644CEZZ	R	Rear AV Terminal	AM
P301	QPLGN0441CEZZ	R	Plug, 4-pin	AB
P303	QPLGN0741CEZZ	R	Plug, 7-pin(HP)	AC
P502	QPLGN0660CEZZ	R	Plug, 6-pin(F)	AC
P602	QPLGN0641CEZZ	R	Plug, 6-pin(H)	AB
P701	QPLGN0260CEZZ	R	Plug, 2-pin(G)	AC
P712	QPLGN0269GEZZ	R	Plug, 2-pin(A)	AB
P1001	QPLGN0541CEZZ	R	Plug, 5-pin(K)	AB
P1002	QPLGN0541CEZZ	R	Plug, 5-pin(BC)	AB
RMC1001	RRMCU0235CEZZ	R	R/C Receiver	AK
RDA301	PRDAR0321PEFW	J	Heat Sink, for IC301	AF
RDA302	PRDAR0160PEFW	J	Heat Sink, for D309	AF
RDA501	PRDAR0298PEFW	J	Heat Sink, for IC501	AF
RDA701	PRDAR0260PEFW	J	Heat Sink, for IC701	AH
RDA754	PRDAR0224PEFW	J	Heat Sink, for Q602	AF
TP201	QLUGP0102PEZZ	J	Lug, Test Point	AA
	LHLDP1066PE00	J	Holder	AC
	LX-BZ0086TAFD	R	Screw	AA
	LX-BZ3049GEFD	R	Screw	AA
	LX-BZ3100CEFD	R	Screw	AA
	LX-TZ3004CEFD	R	Screw	AA
PWB-B	**DUNTK9990WEY2/3 CRT UNIT**			
TRANSISTORS				
Q870	VSBF422////-1	R	BF422	AC
Q871	VSBF422////-1	R	BF422	AC
Q872	VSBF422////-1	R	BF422	AC
Q883	VSBF421////-1	R	BF421	AC
Q885	VSBF421////-1	R	BF421	AC
Q887	VSBF421////-1	R	BF421	AC
DIODES				
D811	RH-DX0475CEZZ	R	Diode	AB
D812	RH-DX0475CEZZ	R	Diode	AB
D880	RH-DX0475CEZZ	R	Diode	AB
D881	RH-DX0475CEZZ	R	Diode	AB
D882	RH-DX0475CEZZ	R	Diode	AB
D883	VHD1SS82///1A	R	Diode	AC
D884	VHD1SS82///1A	R	Diode	AC
D885	VHD1SS82///1A	R	Diode	AC
D886	VHD1SS82///1A	R	Diode	AC
D887	VHD1SS82///1A	R	Diode	AC
D888	VHD1SS82///1A	R	Diode	AC

Ref. No.	Part No.	★	Description	Code

PWB-B DUNTK9990WEY2/3 CRT UNIT (Continued)

D890	RH-EX0627GEZZ	R	Zener Diode	AA

CAPACITORS

C871	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C872	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C873	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C875	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C876	RC-KZ0150CEZZ	R	1000p	3kV	Ceramic	AB
C878	VCEAGA2EW336M	R	33	250V	Electrolytic	AD
C880	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C881	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C882	VCKYPA1HB471K	R	470p	50V	Ceramic	AA

RESISTORS

R879	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R880	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R881	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R882	VRS-VU3DE153J	R	15k	2W	Metal Oxide	AB
R883	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA
R884	VRS-VU3DE153J	R	15k	2W	Metal Oxide	AB
R885	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA
R886	VRS-VU3DE153J	R	15k	2W	Metal Oxide	AB
R887	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA
R892	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R893	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R894	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R895	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R896	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R899	VRD-RA2BE471J	R	470	1/8W	Carbon	AA

MISCELLANEOUS PARTS

P851	QPLGN0641CEZZ	R	Plug, 6-pin(H)	AB
P882	QPLGN0541CEZZ	R	Plug, 5-pin(K)	AB
⚠ SC882	QSOCV0931CEZZ	R	CRT Socket	AK

PWB-C DUNTK9989WEV3 HEADPHONE UNIT

RESISTORS

RJ8	VRN-MD2AL000J	R	0	1/10W	Metal Film	AA
R354	VRN-MD2AL471J	R	470	1/10W	Metal Film	AA
R355	VRN-MD2AL471J	R	470	1/10W	Metal Film	AA

MISCELLANEOUS PARTS

J351	QJAKJ0047CEZZ	R	Jack, Headphone	AD
P351	QPLGN0441CEZZ	R	Plug, 4-pin	AB
P352	QPLGN0341CEZZ	R	Plug, 3-pin	AA

MISCELLANEOUS PARTS

⚠ ACC701	QACCZ2008PEZZ	R	AC Cord (21B-S10S)		AM
⚠ ACC701	QACCZ3008PEZZ	R	AC Cord (21B-S10G)		AN
SP301	VSP1206WB486A	R	Speaker(R), 6 ohm		AQ
SP302	VSP1206WB486A	R	Speaker(L), 6 ohm		AQ
	QCNW-2405PEZZ	R	Connecting Cord (H)		AE
	QCNW-2433PEN1	R	Connecting Cord (K)		AF
	QCNW-2463PEZZ	R	SP Connecting Cord		AF
	QCNW-2465PEZZ	R	Connecting Cord (H/P)		AF
	TCAUA0002PEZZ	R	Caution Card		AB

Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESSORIES

RRMCG1587PESA	R	Infrared R/C Unit		AP
TiNS-7211PEZZ	R	Operation Manual		AN
TMAPC4029PEZZ	R	Service Map		AC
QPLGA0017CEZZ	R	AC Plug Adaptor (21B-S10G)		AK

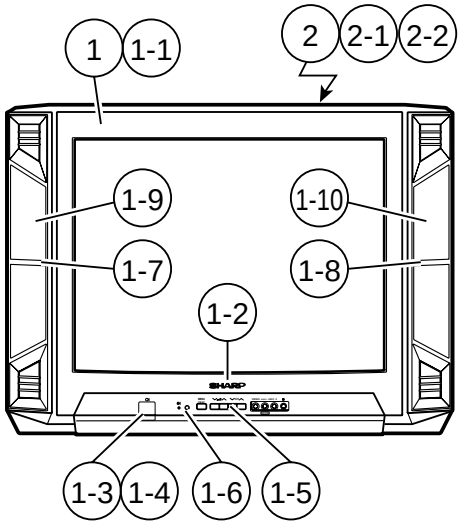
PACKING PARTS (NOT REPLACEMENT ITEM)

SPAKC6694PEZZ	–	Packing Case	—
SPAKX2756PEZZ	–	Buffer Material	—
SSAKA0031PEZZ	–	Polyethylene Bag	—
SSAKH0016PEZZ	–	Polyethylene Bag	—
TLABK0002PEZZ	–	No. Label	—
TLABN0001PEZZ	–	Serial No. Label	—

CABINET PARTS

1	CCABA2631WEV0	R	Front Cabinet Ass'y	BM
1-1	*Not Available*	–	Front Cabinet	—
1-2	HBDGB0015PESB	R	Badge, SHARP	AE
1-3	JBTN-0347PESA	R	Button, Power	AD
1-4	MSPRC0016PEFW	R	Spring, for Power Button	AB
1-5	JBTN-0345PESA	R	Button, Control	AG
1-6	HDECQ0186PESA	R	R/C, LED Cover	AD
1-7	HDECA0083PESA	R	Speaker Decoration-R	AE
1-8	HDECA0084PESA	R	Speaker Decoration-L	AE
1-9	HDECQ0187PESA	R	Speaker Net-R	AQ
1-10	HDECQ0188PESA	R	Speaker Net-L	AQ
2	CCABB2435WEV0	R	Rear Cabinet Ass'y	BA
2-1	*Not Available*	–	Rear Cabinet	—
2-2	TLABM1750PEZZ	R	Model Label (21B-S10S)	AB
2-2	TLABM1760PEZZ	R	Model Label (21B-S10G)	AC

CABINET PARTS LOCATION



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